From	To	Total Feet	Formation
			from 1740-1758', and 1762-1789'. Drill stem test from 1729-1758', showing 510' of sulphurous saline water and no trace of oil or gas.
1781	1818	37	ENTRADA Sandstone, whote to light gray with greenish tone, fine and medium grained, dense.
1818	1830	12	CARMEL Shale, dark chocolate-red, pinkish-red, red, purple, sandy; Sandstone, light pinkish-red, fine
1830	1946	116	NAVAJO Sandstone, light gray to light buff, light tan and tan, medium grained, subangular to subround, slightly limy, cross-bedded. Cored 1840-2062'. Streaky zones and irregular splotches of oil saturation along cross-bedding from 1837-1900½'; best saturation from 1890 to 1891½' and 1896½-1900½'. Drill stem test from 1887'8" to 1913' showing no oil or gas and only 40 feet of fluid believed to be mainly drilling fluid.
1946	2045	99	Sandstone, light gray and very pale grayish-buff, medium grained, subangular to subround, slightly limy, cross-bedded; 1" bed of greenish-gray, sandy shale at top.
2045	2060	15	KAYENTA Sandstone, dark chocolate-red, fine, non-limy, cross-bedded; some deep reddish-tan sandstone; 2" of dark purple-red shale at 2049'.
2060	2220	160	Sandstone, red, shaly, fine, slightly limy; and shale red, sandy
2220	2230	10	Sandstone, red, shaly, fine, slightly limy; and Shale, dark greenish-gray to dark purplish-gray
2230	2250	20	Limestone, gray, light gray, and brownish-gray, argillaceous, very fine; and Shale, gray, hard, limy
2250	2330	80	Sandstone, red, shaly, fine, slightly limy; and Shale red, sandy
2330	2340	10	Shale, red, sandy; Shale, dark red and purple; Sandstone, red, fine, shaly
2340	2380	40	WINGATE Sandstone, white with a few small brown limonitic stains, fine, subround to round
2380	2450	70	Sandstone, as above; and Sandstone, light tan, fine, subangular to subround
2450	2540	90	Sandstone, as above, with some deeper tan sandstone
2540	2560	20	Sandstone, pinkish-tan, fine, subangular to subround
2560	2570	10	Sandstone, light red, fine, slightly shaly
2570	2580	10	Sandstone, as above; and shale, light red, sandy, slightly limy
2580	2600	20	Shale, red, micaceous, silty, soft; a little limestone, gray, limonitic; and sandstone, light red, medium with red shale grains

From	To	Total Feet	Formation
2600	2620	20	Sandstone, light red, medium, with red shale grains; Sandstone, yellow-ocher, fine; Shale, very dark maroon-red, sandy; chert
2620	2630	10	Sandstone, light maroon-red, medium, very micaceous
2630	2640	10	Sandstone, light red, fine, shaley
2640	2650	10	Sandstine, red, shaly
2650	2660	10	Sandstone, white to pinkish-gray, medium, red, green, and black grains; Shale, red
			CHINLE
2660	2720	60	Sandstone, white to pinkish-gray, medium, red, green, and black grains; some red and green shales
2720	2730	10	No samples
			(Fault at 2730' cutting out approximately 180' of lower Chinle, and duplicating 635' of section, consisting of: 260' of Kayenta, 305' of Wingate, and 70' of Chinle)
			KAYENTA
2730	2780	50	Sandstone, light brownish-gray to pale tan, fine
2780	2820	40	Sandstone, light brownish-gray topale tan, fine, and sandstone, pink, fine
2820	2830	10	Sandstone, pinkish-tan to pink, fine
2830	2910	80	Sandstone, light brownish-gray to pale tan, fine, sandstone, pink, fine
2910	2970	60	Sandstone, light brownish-gray to pale tan
2970	2990	20	Sandstone, light brownish-gray, fine
			WINGATE
2990	3120	130	Sandstone, light gray to brownish-gray, fine (Cored 3014-3024'; oil stain and dead hydrocarbon 3017-3020')
3120	3140	20	Sandstone, brownish-gray, fine
3140	3150	10	Sandstone, brownish-gray and light red; Shale deep red to maroon-red
3150	3210	60	Sandstone, light red, fine
3210	3240	30	Sandstone, light gray and brownish-gray, fine
3240	3295	55	Sandstone, light red, fine; some shale, red
			CHINLE
3295	3340	45	Sandstone, light red, fine; some shale, red,
3340	3360	20	Sandstone, brownish-gray, fine
3360	3370	10	Sandstone, brownish-gray and light red; a little shale, red and green
3370	3380	10	No samples
3380	3395	15	Sandstone, brownish-red; some chert
			MOENKOPI
3395	3500	105	Sandstone, brownish-red, fine, slight micaceous; sandstone, purplish-red
3500	3510	10	Sandstone, light gray to greenish-gray, fine; sandstone, brownish-red and purplish-red
3510	3520	10	Shale, pale lavender-gray, limy; shale, greenish-gray, limy; sandstone, brownish-red and light gray, fine
3520	3540	20	Shale, brownish-red, slightly micaceous; and sandstone, brownish-red, very fine

From	To	Total Feet	Formation
3540	3550	10	Sandstone, greenish-gray, fine, limy
3550	3650	100	Sandstone, brownish-red, fine; some shale, brownish-red, sandy
3650	3660	10	Sandstone, pink, medium to coarse, conglomeratic,
3660	3680	20	sandstone, purplish-red, micaceous, conglomeratic
3680	3695	15	Sandstone, brownish-red, pink, pale lavender, medium to coarse, conglomeratic, chert
			Sandstone, brownish-red; shale, brownish-red, fine
			(Fault at 3695' causing loss of more than 460' of normal section, consisting of 150' of Moenkopi, 260' of Cutler, 50' of Rico, and a large but underminable thickness of upper Hermosa formation)
			HERMOSA
3695	3720	25	Limestone, light gray, tan and brown; sandstone, white to light gray, fine
3720	3730	10	Shale, black; limestone and sandstone, as above
3730	3760	30	Sandstone, light gray to gray, fine, limy;
3760	3780	20	limestone, light brown; and shale, black
3780	3790	10	Sandstone, light and dark gray, fine, limy some shale, black
3790	3800	10	Sandstone, dark gray, fine, limy; and Anhydrite
3800	3820	20	Sandstone, light gray to gray, fine, limy
3820	3830	10	Sandstone, brownish-gray, light gray to gray, fine, limy
3830	3865	35	Sandstone, light gray to gray, fine, limy; Anhydrite; and Shale, black
3865	3880	15	Anhydrite, white; and Shale, black
3880	3890	10	Sandstone, light gray, fine, limy; Shale, light gray, sandy, limy
3890	3900	10	Sandstone, as above; Anhydrite, white to light gray, fine
3900	3910	10	Sandstone, as above; Shale, brownish-red, Anhydrite, white to light gray, fine
3910	3920	10	Sandstone, as above; Shale, brownish-red
3920	3950	30	Sandstone, brownish-gray and light gray, fine, dolomitic
3950	3960	10	Sandstone, gray to dark gray, fine; Shale, black; Anhydrite, white to light gray, fine
3960	3980	20	Sandstone, light and dark gray, fine, dolomitic; Shale, black
3980	3990	10	Sandstone, brownish-gray and dark gray, fine, dolomitic; Shale, black, carbonaceous
3990	4000	10	Sandstone, brownish-gray to brown, fine, dolomitic
4000	4010	10	Sandstone, as above; Anhydrite; and Limestone, gray and brown, fine, dense
4010	4020	10	Anhydrite, white to light gray, fine; & Shale
4020	4100	80	Anhydrite, white to light gray, fine
4100	4110	10	Sandstone, brownish-gray and light gray, fine; Anhydrite; Shale, black and light gray
			Sandstone, light gray, fine, dolomitic; Shale, black; and Limestone, brown & light gray, fine, dense

From	To	Total Feet	Formation
4110	4120	10	Anhydrite, white to light gray; Shale, black
4120	4130	10	Sandstone, light gray, fine, dolomitic; Shale, black
4130	4140	10	Sandstone, as above; and Shale, light gray, soft, limy
4140	4170	30	Sandstone, as above; some Shale, black
4170	4180	10	Sandstone, as above; Anhydrite; and Shale, gray
4180	4190	10	Sandstone, as above; some Shale, gray
4190	4200	10	Sandstone, light gray, fine, very dolomitic; Limestone, light brown & light gray, fine, dense
4200	4220	20	Sandstone, as above; some Shale, gray & black
4220	4250	30	Anhydrite, white to light gray, fine; some Shale, black, Sandstone and Limestone
4250	4270	20	Sandstone, light gray, fine, dolomitic; some Shale, light gray
4270	4290	20	Sandstone, as above; some Limestone, brown, fine, dense; and Shale, black
4290	4300	10	Sandstone, white to light gray, fine, dolomitic; a little Shale, black & gray
4300	4310	10	Sandstone, white to light gray, fine, dolomitic; a little Shale, black & gray
4310	4320	10	Sandstone, as above; and Anhydrite, white to light gray
4320	4330	10	Sandstone, white to light gray, fine, dolomitic
4330	4340	10	Anhydrite, white, crystalline, with salt cavities; thin beds or fracture fillings of salt indicated by drilling time and water analysis
4340	4357	17	Anhydrite, as above, Sandstone, light gray, fine, dolomitic; Shale, light gray; and thin beds of salt indicated by drilling time and water analysis
			PARADOX
			(Note: Top Paradox Salt - 4357'. Drilling time and water analysis indicates solid salt at 4357'. The contact between the Hermosa and the Paradox salt section appears to be gradational, with thin beds of salt or possibly fracture fillings occuring from 4324 to 4357'.)
4357	4372	15	Salt, indicated by water analysis and drilling time; drilled
4372	4382	10	Salt, indicated by drilling time (cored but no recovery)
4382	4422	40	Halite, clear, coarse; stringers of anhydrite, dip 45-40
4422	4423	1	Anhydrite, white to light gray, fine; some stringers fine, gray sandstone; dip 40
4423	4425	2	Sandstone, gray, fine, with thin beds of anhydrite; dip 20-25
4425	4430	5	Sandstone, gray, fine; fracture fillings of pink and white dolomite; dip 20-25
4430	4459	29	Sandstone, gray, fine, dolomitic, shaly; a few thin beds of Shale, gray; blebs of white anhydrite; dip 20-25-30; fracture fillings of white and red halite

From	To	Total Feet	Formation
4459	4473	14	Anhydrite, white to light gray, fine; veinlets and thin broken beds of Shale, gray, sandy, dolomitic; dip 30
4473	4475	2	Shale, dark gray, sandy, dolomitic, brecciated; fracture fillings pink and white halite
4475	4478	3	Sandstone, dark gray, shaly, dolomitic; fracture fillings of pink and white halite
4478	4479	1	Anhydrite, white to light gray, fine; thin beds of Shale, gray, sandy; lower contact dip 40
4479	4488	9	Halite, clear, coarse, some stringers of gray anhydrite and tan halite with disseminated polyhalit
4488	4516	28	Halite, clear, coarse; some stringers of anhydrite; dip 35-45
4516	4532	16	Halite, clear, coarse and massive; some stringers disseminated black shale and anhydrite; dip 20
4532	4709	177	Halite, clear, coarse and massive; stringers of anhydrite; dip 25-45 (dip 60 and reversals in dip 4542' - 4552')
4709	4785	76	Halite, medium and coarse, core clear to milky to smoky, stringers of finely disseminated black shale, petroliferous odor along some black shale stringers, dip 20-30
4785	4838	53	Halite, medium and coarse, core clear to milky to slightly smoky; a little finely disseminated black shale, dip 20-25
4838	4860	22	Halite, medium, core smoky to gray; stringers of finely disseminated black shale, petroliferous odor along stringers, dip 15-20
4860	4874	14	Shale, black, carbonaceous (very little recovered) Show of gas at 4867'
4874	4923	49	Halite, clear, coarse; stringers of disseminated black shale and anhydrite, petroliferous odor along black shale stringers; dip 15-20
4923	4981	58	Halite, clear, coarse; a few stringers of black shale and anhydrite; dip 25-30
4981	5006	25	Halite, clear, coarse, much finely disseminated black shale; dip 20-25

CORRECTION:
5006' R.T.M. equals 5012'6" S.L.M.

TOTAL DEPTH: 5012'6" S.L.M.

POTASH COMPANY OF AMERICA - WRIGHT No. 2

Location: SE¼ SE¼ SW¼, sec. 22, T. 21 S., R. 19 E.
330' from S. line, and 2310' from W. line of Sec. 22
Crescent Area, Grand County, Utah
Elevation: 4871' (Rotary table), 4865' (Ground)

From	To	Thickness	Formation
0	6	6	Rotary table is 6' above surface
			MANCOS
6	30	24	Shale, yellowish-brown, sandy, limonitic, soft; and Shale, gray, sandy; Selenite
30	1190	1160	Shale, dark gray, limy, slightly sandy
1190	1225	35	Sandstone, light gray and gray, fine, limy
1225	1690	465	Shale, dark grey, limy, slightly sandy; some grey, sandy, shale
			(Fault or unconformity causing loss of approximately 1250' of normal section, consisting of 100' of Mancos above Ferron, 40' of Ferron, 380' of Mancos below Ferron, 20' of Dakota, and 740' of Morrison)
			SUMMERVILLE
1690	1710	20	Shale, brownish-red; Sandstone, white, light gray, greenish-gray, light brown, brownish-red; Limestone, light pink to pinkish-gray; Calcite
1710	1736	26	Shale, red, light orange-red, sandy; Sandstone, red to light orange-red, fine, shaly; Calcite
			MOAB
1736	1781	45	Sandstone, white to very light gray, medium grained and uniform, subround to round; a few bands of oil saturation 1/8" to 3/4" thick from 1737-1755, decreasing to spotches of saturation and finally disappearing in lower part; cored from 1740-1755', and 1760-1780'. Drill stem test from 1750-1755', showing 510' of sulphurous saline water and no trace of oil or gas.
			ENTRADA
1781	1818	37	Sandstone, white to light grey with greenish-tone, fine and medium grained, dense
			CARMEL
1818	1830	12	Shale, dark chocolate-red, pinkish-red, red, purple, sandy; Sandstone, light pinkish-red, fine

From	To	Thickness	Formation
			NAVAJO
1830	1946	116	Sandstone, light gray to light buff, light tan and tan, medium grained, subangular to subround, slightly limy, cross-bedded. Cored 1840 - 2062'. Streaky zones and irregular splotches of oil saturation along cross-bedding from 1837 - 1900½'; best saturation from 1890 - 1891½' and 1896½' - 1900½'. Drill stem test from 1887'8" to 1913' showing no oil or gas and only 40 feet of fluid believed to be mainly drilling fluid.
1946	2045	99	Sandstone, light gray and very pale grayish-buff, medium grained, subangular to subround, slightly limy, cross-bedded; 1" bed of greenish-gray, sandy shale at top.
			KAYENTA
2045	2060	15	Sandstone, dark chocolate-red, fine, non-limy, cross-bedded; some deep reddish-tan sandstone; 2" of dark purple-red shale at 2049'.
2060	2220	160	Sandstone, red, shaly, fine, slightly limy; and shale, red, sandy
2220	2230	10	Sandstone, red, shaly, fine, slightly limy; and Shale, dark greenish-gray to dark purplish-gray
2230	2250	20	Limestone, gray, light gray, and brownish-gray, argillaceous, very fine; and Shale, gray, hard, limy
2250	2330	80	Sandstone, red, shaly, fine, slightly limy; and Shale, red, sandy
2330	2340	10	Shale, red, sandy; Shale, dark red and purple; Sandstone, red, fine, shaly
			WINGATE
2340	2380	40	Sandstone, white with a few small brown limonitic stains, fine, subround to round
2380	2450	70	Sandstone, as above; and Sandstone, light tan, fine, subangular to subround
2450	2540	90	Sandstone, as above, with some deeper tan sandstone
2540	2560	20	Sandstone, pinkish-tan, fine, subangular to subround
2560	2570	10	Sandstone, light red, fine, slightly shaly
2570	2590	20	Sandstone, as above; and Shale, light red, sandy, slightly limy
2590	2600	10	Shale, red, [illegible], silty, soft; a little limestone, gray, limonitic; and sandstone, light red, medium with red shale grains
2600	2620	20	Sandstone, light red, medium, with red shale grains; Sandstone, yellow-ocher, fine; Shale, very dark maroon-red, sandy; chert
2620	2630	10	Sandstone, light maroon-red, medium, very micaceous

From	To	Thickness	Formation
2630	2640	10	Sandstone, light red, fine, shaly
2640	2650	10	Sandstone, red, shaly
2650	2660	10	Sandstone, white to pinkish-gray, medium, red, green, and black grains; Shale, red
			CHINLE
2660	2720	60	Sandstone, white to pinkish-gray, medium, red, green, and black grains; some red and green shales
2720	2730	10	No samples
			(FAULT at 2730' cutting out approximately 180' of lower Chinle, and duplicating 635' of section, consisting of: 260' of Kayenta, 305' of Wingate, and 70' of Chinle)
			KAYENTA
2730	2780	50	Sandstone, light brownish-gray to pale tan, fine
2780	2820	40	Sandstone, light brownish-gray to pale tan, fine, and sandstone, pink, fine
2820	2830	10	Sandstone, pinkish-tan to pink, fine
2830	2910	80	Sandstone, light brownish-gray to pale tan, fine; sandstone, pink, fine
2910	2970	60	Sandstone, light brownish-gray to pale tan
2970	2990	20	Sandstone, light brownish-gray, fine
			WINGATE
2990	3120	130	Sandstone, light gray to brownish-gray, fine (Cored 3014' - 3024'); oil stain and dead hydrocarbon 3017' - 3020'
3120	3140	20	Sandstone, brownish-gray, fine
3140	3150	10	Sandstone, brownish-gray and light red; Shale deep red to maroon-red
3150	3210	60	Sandstone, light red, fine
3210	3240	30	Sandstone, light gray and brownish-gray, fine
3240	3295	55	Sandstone, light red, fine; some shale, red
			CHINLE
3295	3340	45	Sandstone, light red, fine; some shale, red,
3340	3360	20	Sandstone, brownish-gray, fine
3360	3370	10	Sandstone, brownish-gray and light red; a little shale, red and green
3370	3380	10	No samples
3380	3395	15	Sandstone, brownish-red; some chert
			MOENKOPI
3395	3500	105	Sandstone, brownish-red, fine, slightly micaceous; sandstone, purplish-red
3500	3510	10	Sandstone, light gray to greenish-gray, fine; sandstone, brownish-red and purplish-red
3510	3520	10	Shale, pale lavender-gray, limy; shale, greenish-gray, limy; sandstone, brownish-red and light gray, fine

From	To	Thickness	Formation
3520	3540	20	Shale, brownish-red, slightly micaceous; and sandstone, brownish-red, very fine
3540	3550	10	Sandstone, greenish-gray, fine, limy
3550	3650	100	Sandstone, brownish-red, fine; some shale, brownish-red, sandy
3650	3660	10	Sandstone, pink, medium to coarse, conglomeratic, sandstone, purplish-red, micaceous, conglomeratic
3660	3680	20	Sandstone, brownish-red, pink, pale lavender, medium to coarse, conglomeratic; chert
3680	3695	15	Sandstone, brownish-red; shale, brownish-red, fine
			(FAULT AT 3695' causing loss of more than 460' of normal section, consisting of 150' of Moenkopi, 260' of Cutler, 50' of Rico, and a large but underminable thickness of upper Hermosa formation)
			HERMOSA
3695	3720	25	Limestone, light gray, tan and brown; sandstone, white to light gray, fine
3720	3730	10	Shale, black; limestone and sandstone, as above
3730	3760	30	Sandstone, light gray to gray, fine, limy; limestone, light brown; and shale, black
3760	3780	20	Sandstone, light and dark gray, fine, limy; some shale, black
3780	3790	10	Sandstone, dark gray, fine, limy; and Anhydrite
3790	3800	10	Sandstone, light gray to gray, fine, limy
3800	3820	20	Sandstone, brownish-gray, light gray to gray, fine, limy
3820	3830	10	Sandstone, light gray to gray, fine, limy; Anhydrite; and Shale, black
3830	3865	35	Anhydrite, white; and Shale, black
3865	3880	15	Sandstone, light gray, fine, limy; Shale, light gray, sandy, limy
3880	3890	10	Sandstone, as above; Anhydrite, white to light gray, fine
3890	3900	10	Sandstone, as above; Shale, brownish-red; Anhydrite, white to light gray, fine
3900	3910	10	Sandstone, as above; Shale, brownish-red
3910	3920	10	Sandstone, brownish-gray and light gray, fine, dolomitic
3920	3950	30	Sandstone, gray to dark gray, fine; Shale, black; Anhydrite, white to light gray, fine
3950	3960	10	Sandstone, light and dark gray, fine, dolomitic; Shale, black
3960	3980	20	Sandstone, brownish-gray and dark gray, fine, dolomitic; Shale, black, carbonaceous
[illegible]	3990	10	Sandstone, brownish-gray to brown, fine, dolomitic
[illegible]	[illegible]	10	Sandstone, as above; Anhydrite; and Limestone, [illegible] and brown, fine, dense

From	To	Thickness	Formation
4000	4010	10	Anhydrite, white to light gray, fine; & Shale
4010	4020	10	Anhydrite, white to light gray, fine
4020	4100	80	Sandstone, brownish-gray and light gray, fine; Anhydrite; Shale, black and light gray
4100	4110	10	Sandstone, light gray, fine, dolomitic; Shale, black; and Limestone, brown & light gray, fine, dense
4110	4120	10	Anhydrite, white to light gray; Shale, black
4120	4130	10	Sandstone, light gray, fine, dolomitic; Shale, black
4130	4140	10	Sandstone, as above; and Shale, light gray, soft, limy
4140	4170	30	Sandstone, as above; some Shale, black
4170	4180	10	Sandstone, as above; Anhydrite; and Shale, gray
4180	4190	10	Sandstone, as above; some Shale, gray
4190	4200	10	Sandstone, light gray, fine, very dolomitic; Limestone, light brown & light gray, fine, dense
4200	4220	20	Sandstone, as above; some Shale, gray & black
4220	4250	30	Anhydrite, white to light gray, fine; some Shale, black, Sandstone and Limestone
4250	4270	20	Sandstone, light gray, fine, dolomitic; some Shale, light gray,
4270	4290	20	Sandstone, as above; some Limestone, brown, fine, dense; and Shale, black
4290	4300	10	Anhydrite, white to light gray, fine; a little limestone, and black shale
4300	4310	10	Sandstone, white to light gray, fine, dolomitic; a little Shale, black & gray
4310	4320	10	Sandstone, as above; and Anhydrite, white to light gray
4320	4330	10	Sandstone, white to light gray, fine, dolomitic
4330	4340	10	Anhydrite, white, crystalline, with salt cavities; thin beds or fracture fillings of salt indicated by drilling time and water analysis
4340	4357	17	Anhydrite, as above; Sandstone, light gray, fine, dolomitic; Shale, light gray; and thin beds of salt indicated by drilling time and water analysis

PARADOX

(Note: Top Paradox Salt - 4357'. Drilling time and water analysis indicates solid salt at 4357'. The contact between the Hermosa and the Paradox salt section appears to be gradational, with thin beds of salt or possibly fracture fillings occuring from 4224 to 4357'.)

From	To	Thickness	Formation
			PARADOX
4357	4372	15	Salt, indicated by water analysis and drilling time; drilled
4372	4382	10	Salt, indicated by drilling time (cored, but no recovery)
4382	4422	40	Halite, clear, coarse; stringers of anhydrite, dip 45-40
4422	4423	1	Anhydrite, white to light gray, fine; some stringers fine, gray sandstone; dip 40
4423	4425	2	Sandstone, gray, fine, with thin beds of anhydrite; dip 20-25
4425	4430	5	Sandstone, gray, fine; fracture fillings of pink and white dolomite; dip 20-25
4430	4459	29	Sandstone, gray, fine, dolomitic, shaly; a few thin beds of Shale, gray; blebs of white anhydrite; dip 20-25-30; fracture fillings of white and red halite
4459	4473	14	Anhydrite, white to light gray, fine; veinlets and thin broken beds of Shale, gray, sandy, dolomitic; dip 30
4473	4475	2	Shale, dark gray, sandy, dolomitic, brecciated; fracture fillings pink and white halite
4475	4478	3	Sandstone, dark gray, shaly, dolomitic; fracture fillings of pink and white halite
4478	4479	1	Anhydrite, white to light gray, fine; thin beds of Shale, gray, sandy; lower contact dip 40
4479	4488	9	Halite, clear, coarse; some stringers of gray anhydrite and tan halite with disseminated polyhalite
4488	4516	28	Halite, clear, coarse; some stringers of anhydrite; dip 30-45
4516	4532	16	Halite, clear, coarse and massive; some stringers disseminated black shale and anhydrite; dip 20
4532	4709	177	Halite, clear, coarse and massive; stringers of anhydrite; dip 25-45 (dip 60 and reversals in dip 4542' - 4552')
4709	4785	76	Halite, medium and coarse, core clear to milky to smoky, stringers of finely disseminated black shale, petroliferous odor along some black shale stringers, dip 20-30
4785	4838	53	Halite, medium and coarse, core clear to milky to slightly smoky; a little finely disseminated black shale, dip 20-25
4838	4860	22	Halite, medium, core smoky to gray; stringers of finely disseminated black shale, petroliferous odor along stringers, dip 15-20

From	To	Thickness	Formation
			Paradox (continued)
4860	4874	14	Shale, black, carbonaceous (very little recovered) Show of gas at 4867'
4874	4923	49	Halite, clear, coarse; stringers of disseminated black shale and anhydrite, petroliferous odor along black shale stringers; dip 15-20
4923	4981	58	Halite, clear, coarse; a few stringers of black shale and anhydrite; dip 25-30
4981	5006	25	Halite, clear, coarse, much finely disseminated black shale; dip 20-25

CORRECTION:
5006' R.T.M. equals 5012'6" S.L.M.

TOTAL DEPTH: 5012'6" S.L.M.

POTASH COMPANY OF AMERICA - WRIGHT NO. 2

Location: SE¼ SE¼ SW¼, Sec. 33, T. 21 S., R. 19 E
300' from the S., and 2310' from W. line of Sec. 33
Crescent Area, Grand County, Utah
Elevation: 4871' (Rotary Table)
Log of salt section cores compiled by Kenneth A. Gorton

4357' - 4372'	15'0"	Salt, indicated by water analysis and drilling time; drilled, no cores taken
4372' - 4382' Cored: 10'0" Recovered: 0'0"	10'0"	Salt, indicated by drilling time
4382' - 4388' Cored: 6'0" Recovered: 0'4"	0'4"	Halite, clear, coarse, stringers anhydrite, core under size
4388' - 4398' Cored: 10'0" Recovered: 8'6"	8'6"	Halite, as above, dip 45-40-40-30
4398' - 4408' Cored: 10'0" Recovered: 1'5"	1'5"	Halite, as above, dip 45
4408' - 4418' Cored: 10'0" Recovered: 8'10"	8'10"	Halite, as above, dip 45-40-45
4418' - 4428' Cored: 10'0" Recovered: 5'4"	1'0"	Anhydrite, white and light gray, fine, compact; some stringers of Sandstobe, light gray, fine, dip 40
	1'9"	Sandstobe, gray, very fine, anhydritic, slightly limy, thin bands, 1/8" to 1/16" thick, of white anhydrite along bedding, dip 20-25
	2'7"	Sandstone, gray, very fine, anhydritic, shaly, slightly limy, dip 20-25; fracture fillings pink and white dolomite
		Note: material lost is believed to be mainly salt in the upper part of the core.
4428' - 4438' Cored: 10'0" Recovered: 9'4"	2'3"	Sandstone, as above, dip 22
	0'4"	Shale, black, sandy, fracture fillings white and pink dolomite

	1'9"	Sandstone, gray, medium, very limy, fracture fillings white and pink dolomite and halite
	4'10"	Sandstone, gray, very fine, shaly, limy, a few thin beds of Shale, gray; cross-bedded, dip 25-25
4438' - 4447' Cored: 9'0" Recovered: 8'9"	7'9"	Sandstone, as above, dip 20-25; fracture fillings pink and white dolomite and white and red halite
4447' - 4454' Cored: 7'0" Recovered: 2'11"	1'1"	Sandstone, as above, dip 25
	1'10"	Sandstone, light gray, very fine, dolomitic; thin partings dark gray shale; blebs of white anhydrite drawn into "augen" giving poor "dalmation" effect; dip 30
4454' - 4459' Cored: 5'0" Recovered: 5'6"	5'6"	Sandstone, light gray, very fine, dolomitic; and Shale, dark gray, sandy, dolomitic, thin bedded; dip 30; a few small "agugen" of white anhydrite; fracture fillings of white and red halite
4459' - 4469' Cored: 10'0" Recovered: 9'10"	9'10"	Anhydrite, white, finely crystalline, with deformation veinlets of dark gray shale; also thin and thick, broken beds of Shale, gray, sandy, very dolomitic; in places anhydrite is in rounded blebs producing a good "dalmation effect", dip 30-30
4469' - 4478' Cored: 9'0" Recovered: 7'6"	4'0"	Core as above
	1'5"	Shale, dark gray, very sandy, dolomitic, brecciated; fracture fillings of pink and white halite
	1'8"	Sandstone, dark gray to dark brownish-gray, shaly, dolomitic, highly fractured, fracture fillings of pink and white halite
4478' - 4488' Cored: 10'0" Recovered: 8'5"	0'10"	Anhydrite, white andlight gray, fine; thin beds of Shale, gray, sandy, lower contact dip 40
	7'8"	Halite, clear, coarse; some thin stringers of gray anhydrite; halite is dan colored close to some of the anhydrite stringers due to finely disseminated polyhalite
4488' - 4498' Cored: 10'0" Recovered: 8'8"	8'7"	Halite, clear, coarse; some stringers anhydrite; dip 35-40-30-30-30

4498' - 4506' Cored: 8'0" Recovered: 7'6"	7'6"	Halite, clear, [illegible] some stringers of [illegible] 30-25-25-30-30-[illegible]
4506' - 4516' Cored: 10'0" Recovered: 9'7"	9'7"	Halite, as above; dip 30-25-30
4516' - 4522' Cored: 6'0" Recovered: 6'0"	6'0"	Halite, clear, coarse and massive; some stringers disseminated black shale and anhydrite; dip 22-20
4522' - 4532' Cored: 10'0" Recovered: 9'2"	9'2"	Halite, clear, coarse and massive; stringers of anhydrite; did black shale; dip 22-20
4532' - 4542' Cored: 10'0" Recovered: 10'10"	10'10"	Halite, clear, coarse and massive; stringers of anhydrite; dip 25-25-20
4542' - 4552' Cored: 10'0" Recovered: 9'10"	9'10"	Halite, as above; dip 45-45, reversals in dip in lower part
4552' - 4562' Cored: 10'0" Recovered: 10'6"	10'6"	Halite, as above; dip 60-60-25-45
4562' - 4572' Cored: 10'0" Recovered: 9'2"	9'2"	Halite, as above; dip 45-45-45-35-45
4572' - 4582' Cored: 10'0" Recovered: 8'2"	8'2"	Halite, as above; dip 35-25-25-45
4582' - 4592' Cored: 10'0" Recovered: 10'10"	10'10"	Halite, as above; dip 25-30-45-45
4592' - 4602' Cored: 10'0" Recovered: 9'7"	9'7"	Halite, as above; dip 40-30-35, reversals in dip in lower part
4602' - 4612' Cored: 10'0" Recovered: 9'5"	9'5"	Halite, as above; dip 30-30-30-35
4612' - 4622' Cored: 10'0" Recovered: 9'2"	9'2"	Halite, as above; dip 30-25-25-30-45-50
4622' - 4632' Cored: 10'0" Recovered: 10'2"	10'2"	Halite, as above; dip 45-40-45-40-40

4632' - 4642' Cored: 10'0" Recovered: 9'10"	9'10"	Halite, as above; dip 35-35-35
4642' - 4652' Cored: 10'0" Recovered: 10'1"	10'1"	Halite, as above; dip 30-30-35-40-40
4652' - 4662' Cored: 10'0" Recovered: 9'10"	9'10"	Halite, as above; dip 30-30-35-30
4662' - 4672' Cored: 10'0" Recovered: 9'0"	9'0"	Halite, as above; dip 35-35-30
4672' - 4682' Cored: 10'0" Recovered: 10'4"	10'3"	Halite, as above; dip 35-35-35-35
4682' - 4692' Cored: 10'0" Recovered: 10'2"	10'2"	Halite, as above; dip 25-45-40-45-45-40
4692' - 4702' Cored: 10'0" Recovered: 10'0"	10'0"	Halite, as above; dip 40-30-30
4702' - 4709' Cored: 7'0" Recovered: 6'3"	6'2"	Halite, as above; a few blebs of light tan halite, dip 30
4709' - 4719' Cored: 10'0" Recovered: 9'9"	0'7"	Halite, smoky, core smoky, medium grained, slickensided; stringers of black shale and anhydrite; inclusions of fine, gray sandstone; dip 30
	9'1"	Halite, clear, core milky white, medium grained, appears slickensided, some blebs coarse, clear halite
4719' - 4729' Cored: 10'0" Recovered: 8'9"	2'10" 2'5"	Halite, as above, dip 30 Halite, as above, except core smoky due finely disseminated black shale and anhydrite
	3'6"	Halite, as above, except core is milky white, dip 30
4729' - 4739' Cored: 10'0" Recovered: 10'3"	0'11" 9'4"	Halite, as above, dip 30-30 Halite, clear, medium, core smoky; narrow stringers of finely disseminated black shale, petroliferous odor & slight oil stain along black shale stringers; a few blebs of clear, coarse halite; dip 30

4739' - 4749' Cored: 10'0" Recovered: 7'3"	7'4"	Halite, clear, medium, with many coarse crystals, core slightly smoky; stringers of finely disseminated black shale, petroliferous odor along stringers; dip 30-20-25
4749' - 4759' Cored: 10'0" Recovered: 9'4"	2'10" 6'4"	Halite, as above Halite, clear, core very slightly smoky, medium and coarse; a little finely disseminated black shale; dip 25-25-25
4759' - 4769' Cored: 10'0" Recovered: 8'6"	8'4"	Halite, as above; dip 30-25-20
4769' - 4779' Cored: 9'0" Recovered: 2'6"	2'0"	Halite, as above; lower 1'6" crushed and stained brown by drilling mud
4779' - 4789' Cored: 10'0" Recovered: 9'6"	7'0"	Halite, medium and coarse, core smoky to gray in places; stringers and narrow bands of finely disseminated black shale, petroliferous odor along black shale stringers; dip 25-20-25-20
	2'6"	Halite, coarse, core clear to milky, very little disseminated black shale
4789' - 4799' Cored: 10'0" Recovered: 2'2"	2'0"	Halite, medium and coarse, core clear to milky; swivel bearing brought up with core
4799' - 4809' Cored: 10'0" Recovered: 9'2"	9'2"	Halite, coarse with some medium, core clear to milky to slightly smoky; a few narrow stringers of finely disseminated black shale, dip 20 to 25
4809' - 4819' Cored: 10'0" Recovered: 8'0"	8'0"	Halite, coarse with some medium, core clear; very little finely disseminated black shale; core fractured and stained brown in places by drilling mud; dip 25
4819' - 4829' Cored: 10'0" Recovered: 9'0"	8'8"	Halite, as above; dip 25
4829' - 4839' Cored: 10'0" Recovered: 6'10"	6'9"	Halite, as above; dip 25-20-25-20
4839' - 4845' Cored: 7'0" Recovered: 10'2"	3'9" 6'7"	Halite, as above, dip 20 Halite, medium, core smoky to gray; stringers and narrow bands of finely disseminated black shale, petroliferous odor along stringers; dip 15

4845' - 4855' Cored: 10'0" Recovered: 0'0"		
4855' - 4865' Cored: 10'0" Recovered: 5'0"	5'2" 0'3"	Halite, as above, dip 20 Shale, black, carbonaceous, soft, hydrocarbon odor
4865' - 4867' Cored: 2'0" Recovered: 0'0"		(Probably Shale, as above) Show of gas 4867'
4867' - 4876' Cored: 9'0" Recovered: 1'6"	1'5"	Halite, clear, coarse, core clear to smoky; stringers of black shale; dip 20 (The material not recovered in the upper part of this core is believed to be shale. It drilled to hard to be salt, and the fact that it was washed out of the core barrel, indicated that it was shale.)
4876' - 4886' Cored: 10'0" Recovered: 9'7"	9'8"	Halite, clear, coarse, core clear to light gray; stringers of disseminated black shale; petroliferous odor along black shale stringers; dip 18-20
4886' - 4896' Cored: 10'0" Recovered: 8'5"	8'5"	Halite, as above; dip 20-15-10-18
4896' - 4906' Cored: 10'0" Recovered: 8'3"	8'1"	Halite, clear, coarse, core clear to gray; inclusions and stringers of disseminated black shale and anhydrite; petroliferous odor along black shale stringers; dip 20-15-20
4906' - 4916' Cored: 10'0" Recovered: 8'7"	8'6"	Halite, as above; dip 15 to 20
4916' - 4926' Cored: 10'0" Recovered: 4'9"	0'4" 1'5" 2'8"	Breccia: Sandstone, light grey, fine; and halite, clear, medium Halite, as above; dip 15 Halite, clear, coarse, core clear to smoky; some massive, light tan crystals of halite; stringers of disseminated black shale and anhydrite; some fine, disseminated crystals of pink anhydrite
4926' - 4936' Cored: 10'0" Recovered: 8'10"	8'10"	Halite, clear, medium, core clear to smoky; a few stringers of disseminated black shale and anhydrite; dip 30-25-25

4936' - 4946' Cored: 10'0" Recovered: 7'5"	1'0" 6'4"	Halite, as above Halite, clear, coarse, core clear, dip 25
4946' - 4956' Cored: 10'0" Recovered: 5'8"	2'0" 3'4"	Halite, as above Halite, clear, coarse; a few stringers of disseminated black shale and anhydrite; dip 27
4956' - 4961' Cored: 6'0" Recovered: 1'2"	0'4" 0'10"	Halite, as above, dip 30 Halite, clear, coarse, core clear
4961' - 4971' Cored: 10'0" Recovered: 1'10"	0'2" 1'8"	Shale, gray, hard, dolomitic; fracture fillings of pink dolomite Halite, clear, coarse; a few stringers of disseminated black shale and anhydrite; dip 25
4971' - 4981' Cored: 10'0" Recovered: 10'2"	10'5"	Halite, clear, coarse; a few narrow, cloudy stringers of disseminated blask shale and anhydrite; dip 20 to 25
4981' - 4991' Cored: 10'0" Recovered: 4'8"	4'2"	Halite, clear, coarse, core smoky to light gray; stringers of disseminated black shale and anhydrite; dip 20-25; core broken by drilling
4991' - 5001' Cored: 10'0" Recovered: 7'11"	7'11"	Halite, as above; much disseminated black shale in lower 5'; dip 25
5001' - 5006' Cored: 5'0" Recovered: 2'8"	2'8"	Halite, clear, coarse, core gray due to much disseminated black shale and anhydrite; dip 20-25

CORRECTION:
5006' R.T.M. equals 5012'6" S.L.M.

TOTAL DEPTH: 5012'6" S.L.M.

Confidential

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GENERAL LAND OFFICE Salt Lake
SERIAL NUMBER 063655
LEASE OR PERMIT F.L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Grand Field Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of June, 1943

Agent's address Thompson, Utah Company Potash Company of America

Signed G. C. Weaver

Phone None Agent's title Superintendent

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	Remarks (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
33, [illegible], SW	22	19	2							

Spudded: 6-22-43
Set 13" O.D. casing at 121', cemented with 80 sacks cement on 6-26-43

FORMATIONS

Name	From	To	Thickness	Date encountered
Mancos	0	566	566	6-22-43

Bottom of hole on 6-30-43, 566'

FORMATIONS TESTED

none

FORMATIONS CORED

none

4, SW, SW	22	19	1

FORMATIONS CORED

Name	From	To	Thickness	Date encountered
Paradox (Salt)	4911	5005	94	4-26-43

FORMATIONS TESTED

none

Completed drilling 6-3-43. Plugged: 6-3-43 and 6-4-43 (refer to Subsequent Report of Abandonment).

GEOLOGICAL SURVEY RECEIVED JUL 5 1943 SALT LAKE CITY, UTAH OIL & GAS LEASING DIVISION
ORIGINAL FORWARDED TO CASPER

NOTE.—There were ______ runs or sales of oil; ______ runs or sales of gas; ______ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
Revised January 13, 1938

6. This notice of intention to drill is approved subject to the conditions that drilling operations so authorized shall be in conformity with the terms and conditions of Conservation Order No. M-68 of the War Production Board or any modification or amendment thereof that hereafter may be issued.

Wright No. 2 7-25-43

Mack phoned twice.

Show 1837 - 1840

Cored from 40 - 50) Uniform fine grained cross-bedded
50 - 60) sandstone.

7-26-43

Mack phoned 10 a.m.

Still coring got a little better show but still only spotted and very little bleeding of the core. Show at 1896 - 1901, some saturation. Will probably set packer and test the 1890 - 1895 show.
T. D. 1903

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GENERAL LAND OFFICE Salt Lake
SERIAL NUMBER 063655
LEASE OR PERMIT P.L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Grand Field Crescent area

The following is a correct report of operations and production (including drilling and producing wells) for the month of July, 1943,

Agent's address Thompson, Utah Company Potash Company of America

Signed S. H. Mack

Phone None Agent's title Acting Superintendent Drilling

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
33 SE¼ SW¼	21S.	19E	2							

FORMATIONS

Name	From	To	Thickness	Date encountered
Mancos	566	1690	1124	6-22-43
Summerville	1690	1736	46	7-16-43
Moab	1736	1781	45	7-19-43
Entrada	1781	1818	37	7-23-43
Carmel	1818	1830	12	7-25-43
Navajo	1830	1946	116	7-25-43
Kayenta	1946	2172	226	7-27-43

Bottom of hole on 7-31-43: 2172

AUG 5 1943
OIL & GAS CONSERVATION DIVISION

ORIGINAL FORWARDED TO CASPER AUG 6 1943

FORMATIONS CORED

Name	From	To	Thickness cored
Moab	1740	1758	18 feet
Moab	1762	1781	19 "
Entrada	1781	1789	8 "
Navajo	1840	1946	106 "
Kayenta	1946	2062	116 "

FORMATIONS TESTED

Name	Depth of Packer	Bottom of hole	Result	Date of test
Moab	1729'1"	1758'	510' of saline and sulphurous water; no oil or gas	7-20-43
Navajo	1887'8"	1913	No oil or gas; 40' of fluid in pipe, believed to be mainly drilling fluid	7-26-43

NOTE.—There were _____ runs or sales of oil; _____ runs or sales of gas; _____ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
Revised January 10, 1938

9—[illegible] U.S. GOVERNMENT PRINTING OFFICE

306 Federal Building
Salt Lake City 1, Utah

August 14, 1943.

MEMORANDUM for Wm. H. Strang: SUBJECT: Testing Wright No. 2 Well, Salt Lake City 063655.

The attached copy of the lessee's monthly report of operations for July, the stratigraphic column of the four wells drilled by the Potash Company thus far on Lefax sheet, and an excerpt from the July monthly well status report, I believe will add to your "file" and will give you all the pertinent information you will need while conducting the test now in preparation on No. 2 Wright well.

On second thought, I believe you should consult with Mack and possibly Aurand regarding inspecting the cores for saturation within the 1700' to 1900' area. Also, make free use of the Potash Company's copy of the Schlumberger log in their office. I have the utmost confidence in your ability to see that this test is given every possibility to obtain the maximum oil recovery from these formations.

For your information I expect Hale Soyster through here the latter part of next week and am hoping we will find time to visit this well. It will be just about the time the gun perforations of the casing and possibly the swabbing will take place. It certainly would be an opportune time for Hale to get another eyeful of their "struggling" efforts to find oil at Crescent Junction.

Best regards.

C. A. Hauptman,
District Engineer.

Encs.

cc. Casper

CAH:id

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GENERAL LAND OFFICE Salt Lake
SERIAL NUMBER 063655
LEASE OR PERMIT F. L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of August, 1943,

Agent's address Thompson, Utah *Company* Potash Company of America

Signed [signature]

Phone none *Agent's title* Supt.

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
33 SE, SW	21S.	19E	2							

FORMATIONS

Name	From	To	Thickness	Date encountered
Kayenta	2172	2340	168	7-27-43
Wingate	2340	2660	320	8- 4-43
Chinle	2660	2864	204	8-9- 43

GEOLOGICAL SURVEY
SEP 7 1943
SALT LAKE CITY, UTAH
OIL & GAS LEASING DIVISION

FORMATIONS CORED

none

ORIGINAL FORWARDED TO CASPER
SEP 8 1943

FORMATIONS TESTED

Name	Nature of Test	Results	Date of Test
Base of Summerville and top of Moab	8-5/8" casing cemented at 2728' with 365 sacks.		
	(1) Gun perforated with 20 3/4" bullets from 1725' to 1730'	(1) No oil gas or water	8-22-43
	(2) Gun perforated with 20 3/4" bullets from 1730-1735'	(2) Some water and a slight rainbow oil, no gas	8-22-43
	(3) Gun perforated with 20 3/4" bullets from 1735' to 1740'	(3) Water came in rapidly	8-22-43
	(4) Gun perforated with 20 3/4" bullets from 1740' to 1745'	(4) Water rose to 1077' and finally to 600' from top	8-22-43
	(5) Bailed for approximately 30 hours	(5) No show oil or gas	8-22-43 and 8-24-43

NOTE.—There were .... runs or sales of oil; .... runs or sales of gas; .... runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
Revised January 18, 1928

U. S. GOVERNMENT PRINTING OFFICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

General Land Office Salt Lake
Serial Number 063555
Lease or Permit F.L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of September, *19*43,

Agent's address Thompson, Utah *Company* Potash Company of America

Signed Geo S. Laird

Phone None *Agent's title* Field Superintendent

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	Remarks (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
33 SE SW	21S	19E	2							

FORMATIONS

Name	From	To	Thickness	Date encountered
Kayenta	2864	2990	26	8-27-43 (top 2730')
Wingate	2990	3295	305	9- 3-43
Chinle	3295	3395	100	9- 9-43
Moenkopi	3395	3682	287	9-19-43

Depth on 9-30-43 is 3682'

FORMATIONS CORED

Name	From	To	Thickness	Date cored
Wingate	3014	3024	10	9- 3-43

FORMATIONS TESTED

Schlumberger electric log ran from bottom of 8-5/8" casing at 2728' to 3375' on 9-15-43.

Note.—There were ______ runs or sales of oil; ______ runs or sales of gas; ______ runs or sales of gasoline during the month. (Write "no" where applicable.)

Note.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
Revised January 18, 1928

U. S. GOVERNMENT PRINTING OFFICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GENERAL LAND OFFICE Salt Lake
SERIAL NUMBER 083666
LEASE OR PERMIT F.L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of October, 1943,

Agent's address Thompson, Utah *Company* Pyramid Company of America

Signed Thos S Lamb

Phone none *Agent's title* Superintendent

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause date and result of test for gasoline content of gas)
28 SE SW	21S	19E	2							

FORMATIONS

Name	From	To	Thickness	Date encountered:
Moenkopi	3682	3695	13	9-19-43 (Top 3695')
Hermosa	3695	3979	284	10- 3-43 (Top 3695')

Depth on 10-31-43 is 3979'

FORMATIONS CORED
none

FORMATIONS TESTED
None

U.S. GEOLOGICAL SURVEY
NOV 15 1943
RECEIVED
SALT LAKE CITY, UTAH

ORIGINAL FORWARDED TO CASPER
NOV 15 1943

NOTE.—There were ..... runs or sales of oil; ..... runs or sales of gas; ..... runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
Revised January 12, 1939

9—43555 U. S. GOVERNMENT PRINTING OFFICE

Form 9-331 a
(March 1942)

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake
Lease No. 063655
Unit F. L. Wright#2

33

U. S. GEOLOGICAL SURVEY
OIL & GAS DIV.
NOV 30 1943
RECEIVED
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			
Notice of intention to test gas showing			X

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November, 29th, 1943.

Well No. 2 is located 330 ft. from [S] line and 2310 ft. from [W] line of sec. 33

SE¼ofSE¼ofSW¼ (¼ Sec. and Sec. No.) T. 21S (Twp.) R. 19 (Range) Salt Lake (Meridian)

Cresecat (Field) Grand (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is 4871 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

About 3:30 A.M. on the morning of above date a strong surge of gas appeared on the discharge line. This is a notice of our intention to make drill stem test. Batton of hole is 4867! Gas encountered between 4865' and 4867'.

Approved, subject to the final approval of District Engineer in Salt Lake.
Wm. H. Strang, Drilling Supervisor, U.S.G.S.

ORIGINAL FORWARDED TO CASPER
DEC 2 - 1943

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Petash Company of America

Address Thompson, Utah.

Approved December 1, 1943
[illegible]
District Engineer

By [signature]

Title Thos. S. Laird
Superintendent.

U. S. GOVERNMENT PRINTING OFFICE

NOTICE OF INTENTION TO DRILL
(sheet 2)

Details of work.

It is proposed, all in accordance with good drilling practices and subject to and in compliance with ~~good drilling practices and subject to and in compliance with~~ the oil and gas operating regulations and requirements of the United States Geological Survey, and by use of rotary drilling equipment:

1. To install 13" - 50 lb. new or second hand surface or conductor casing to about 130 feet and to cement same from top to bottom in the Maneos shale. If second-hand casing is used, it shall be in first-class condition.

2. To drill a 10" hole to a depth of about 2500 feet unless the top of salt section is encountered at a lessor depth. If it appears desireable in order to exclude underground water, establish circulation, or for other unexpected contingencies that may occur, such hole will be cased with 8 5/8" - 28 lb. seamless casing to be properly cemented at the selected depths by the use of one hundred sacks or more of cement.

3. To drill ahead a hole not smaller than 7 7/8" to a depth of 5000 feet unless at a lessor depth either a horizon commercially productive of oil or gas shall be discovered or geological conditions shall be disclosed indicating the futility of further drilling; to core all potentially productive oil and gas zones encountered; to drill stem test showings of oil and/or gas, and to electric log the well as a final check on oil possibilities not disclosed in cutting the formations by rotary drilling.

Productive possibilities are contemplated in the Dakota, Morrison and Paradox formations. Depth at which these formations will be penetrated cannot be determined as faulting and movement have changed the depth to the Dakota in previous holes drilled in the district as much as 1500 feet.

4. To core more or less continuously in the Paradox formation to locate and determine the values of any potash and/or magnesium salts, using proper solutions to permit obtaining satisfactory cores. The core barrel used will cut a core approximately 2" in diameter.

5. To notify the United States Geological Survey representative of any mudding, cementing, water shut off and oil or gas tests in order that a representative of the Survey may be present at the time of such test; also to notify such representatives of any change in the operations above proposed and to consider such changes with such representative looking toward approval of any changes made.

Approved May 29, 1943

C. H. Baumann
District Engineer

POTASH COMPANY OF AMERICA

By C. F. Coope
C. F. Coope, President

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GENERAL LAND OFFICE Salt Lake
SERIAL NUMBER 06[illegible]
LEASE OR PERMIT F.L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of November, 19 43

Agent's address Thompson, Utah *Company* Potash Company of America

Signed [illegible]

Phone none *Agent's title* Superintendent

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
33 SE SW	21S	19E	2							

FORMATIONS

Name	From	To	Thickness	Date encountered:
Hermosa	3979	4357	378	10- 3-43 (Top 3695')
Paradox salt	4357	4867	510	11-14-43 (Top 4357')

Depth on 11-30-43 is 4867'

FORMATIONS CORED

Paradox salt	4357	4867	none 510	11-14-43 (Top 4357')

FORMATIONS TESTED

none

U. S. GEOLOGICAL SURVEY OIL & GAS DIV. DEC 2 - 1943 RECEIVED [SALT L]AKE CITY, UTAH

ORIGINAL FORWARDED TO CASPER DEC 3 - 1943

NOTE.—There were .... runs or sales of oil; .... runs or sales of gas; .... runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
Revised January 14, 1922

Per W H Strang over phone Aug 23

No oil No gas.

Shot Lower 5'

2 - 20 = 40 shots 1725'

bailer down.

1784'

½ bailer of bottom 1784

2 - 20 = 40

Water

less & less mud

fresh water Water 139 p.p. mil.

Water 400' of surface over night

Drill stem test

Ask him if it has stood long enough to be sure all the drilling water or mud has had a chance to come out.

Also how long do you think this detail should continue or how long will it continue. Original 30 day limit

Sec. 10. - Woods

1950' Wingate.

Chinle.

On Aug. 22nd, 1943, hole was bailed of mud fluid to 1784', and the cement job found to be good.

— Order of shooting and testing —

(1) Shot: 1725'-1730' - 20-3/4" Holes - 4 per foot - [illegible] #150 - Time 2:20 pm.
(2) " 1730-1735' - " " " " 2:35 "

1st bailer run to 1784' - ½ full thick Drg. Mud.
2nd, 3rd, 4th, 5th, 6th, 7th, 8th [illegible] Time - 3:30 to 5:30 p.m.
Mud [illegible] and water on increase.
Fluid raised from 1784 to 1592 under continuous bailing -
• Water sample at 5:30 p.m. tested 139 [illegible] comparable [illegible] [illegible] with Schlumberger survey curve & comment by Schlumberger Agent on Aug. 11th.

(3) " 1735'-1740' " " " " 5:30 pm.
(4) " 1740'-1745' " " " " 6:50 "

Water raised from 1592 to 1077 in 30 minutes -
Bailed from 7 p.m. to 8 PM -
Water sample taken at 1735 tested 139 PPM [illegible] almost same as [illegible] water -
Decided to let well stand till 8 AM following day [illegible] water head - Well shut down at 8 PM.

— Aug. 23 —

8 A.M. - Found water head at 400'. Water sample #3 taken at 1700' showed increase of solids from 139 to 224 PPM. Sample #4 and #5 taken during AM and PM tested 238 & 300 PPM. CL. respectively, indicating that water native to this formation displaced the [illegible] [illegible]

Bailing continued throughout the night of Aug. 23-24 - 2)

Aug - 24 -

8:00 AM Water could not be lowered below 750' by continuous bailing from 8 am the 23rd to 8 am the 24th.
Water sample taken at 1700 at 8 am [illegible] 1572 PPM. C.L. and continued to increase. In [illegible] appearance and smell - it is fairly comparable to samples No's 1, 2, and 3 taken from drill stem after drill stem test from core hole 1729 - 1758. and explains why the Schlumberger survey showed fresh water instead of water of the type found in drill-stem-test. The explanation is of course, that: the drilling water displaced the water native to the sand, to a point beyond the 16 foot limit of electrical influence. This you will recall is why Schlumberger agent was so concerned about the reading taken when considered in the light of the high salinity of the drill stem samples 1-2 and 3 -

A faint trace of oil was detected and a faint smell of gas - something sulfur. The last water tested resembled sulphur water —

This test was concluded by giving oral approval to P.C.A to prepare hole for cementing 8⅝" holes, preparatory to continued drilling - since the shooter was not willing to stand-idle pending test just completed because of pressing shooting elsewhere.

However, the P.C.A. was advised that the slight showing found about middle [illegible]

in cores showing slight and irregular oil splatches: 1890' - 1891½ and 1896½ - 1900½, - (5½ feet); and tested by drill-stem-test from 1888' - 1915, - might be retested by gun perforation when required by the U.S.G.S. and at such time as shooter is available; that until such time, and acting in the light of drill stem test above mentioned, further drilling could proceed after cementing-off perforations made from 1725' to 1745' - to insure positive testing of said untested lower showings, if and when required -

Hole area 1725' - 1745 was cemented - using 35 Sax. - Bottom of slurry 1768 - 1569 Top. (3.13 per foot). 12 Sax were put through 80 - ½" holes - at 400# pump P. + column pressure - Well standing cemented Time 8: pm 8-24-43 -

Green River, Utah -
Aug - 24, 1943.

Memo to [illegible] Salt Lake City, Office -

AUG 24 1943

[illegible]

As reported in memo of Aug 19-43 - 8⅝" - 28# casing was cemented in this well at 2726, using [illegible] sax: 335; computed on the basis of 11" hole and theoretical cement rise to Appx 1400' -

In keeping with our [illegible] on Aug 11th and paragraph 2 of your letter [illegible] Aug. 14th, a conference was held on Aug. 21st - to reconsider Moab, Entrada, and Navajo cores; drill-stem-tests based thereon; (1) <lower Summerville and Upper Moab> and (2) <Appx middle Navajo>

It was the consensus of opinion among the conferees: Messrs: Pierce, Gorton, Avrand, Mack and [illegible] that, inasmuch as oil stains ([illegible]) found in cores taken from 1740' - 1758' in Moab - [illegible] entirely disappeared at 1756' and, That no oil stains appeared in cores taken from 1762' - 1788' in lower Moab and upper Entrada, that any tests [illegible] should be made in lower Summerville and upper Moab to find free gas and/or oil which, in all probability - if at all - would be found there - rather than in middle Moab or upper Entrada - where the drill-stem-test <1740' - 1758'> and cores taken <1762' - 1788'> showed water saturation of 2496, 5248, and 7632 PPM of CL with strong sulpher smell - furthermore, it was our opinion that water existed throughout the Moab + Entrada sands - since no barriers of shale or other impervious laminations were found in cores, or drill cuttings native to these sections whereby water would be prevented from permeating the entire mass.

Therefore, decision was made to shoot and test lower Summerville: - 1725' to 1735', and, upper Moab: - 1735 - 1745. first, and thereafter be governed by results as to possible tests of lower Measures in the hole -

SEP 18 1943

— WRIGHT #2 —

Shoe of 8⅝" - 28# pipe, 2728' — Sept. 13 - 1943 —
Bottomed in Chinle 2728' —

Fault: between 2728' and 2730' — Placed at 2730'

2730': Went into sand, fine texture. Character of sand and change in color below fault (2730) made it impossible to make a definite correlation until a depth of in excess of 3300 feet was reached. Analysis shows the following:—

2730' — Entered Kayenta formation at a point appx. 35 feet below the top of that member —

2730' - 2990' - Kayenta
2990' - 3295' - Wingate
3295' - 3375' - Still in Chinle —

At 3375' the well has reached a point in the Chinle comparable to the depth reached in the Chinle formation at 2730'

3014' - 3024' - A slight show of oil was found in a core taken at (between these depths) - 30' to 40' below the top of the Wingate formation. To date no oil has been found in other wells in this formation. This core was poorly saturated - containing much insoluble hydrocarbon material but slight traces of oil by solvents. No free oil was found. No free gas was observed although drillers claim to have smelt gas while pulling the core.

3375' Well now (9-13-43) bottomed appx. 80' below top of Chinle which may be as much as 250' thick.

Faulting: An upward thrust of a fault block between 1690' and 2730' caused the loss of 1280' to 1375' of sediments, this block being thrust upward! The well was drilled from Mancos

shale at a point approximately 200' above the Ferron formation, into the Summerville. [illegible] Then the following formation and thicknesses were missing:

	Max.		Min.
1 - Upper Mancos	200'	-	200'
2 - [illegible]	60'	-	60'
3 - Lower Mancos	[illegible]	-	320'
4 - Dakota	10'	-	20'
5 - Morrison	670'	-	755'
6 - Summerville	20'	-	20'
Total	1280'	-	1377'

Fault: 2730': - The fault block between 1690' and 2730' was pushed upward and over the sediments below the fault at 2730'.

• On drilling through the fault the Kayenta was found at a point approximately 35' below the top of that formation. Appx. 260' of Kayenta, 310' of Wingate and 80' of Chinle were drilled to reach the same point in formation as had been reached before crossing the fault at 2730'. Total thickness of formation duplicated - 650'.

3375': - From this point downward new and lower formations should be drilled.

Date: Sunday 9-19-43 - Drilling Chinle at 3395' —

In the event you consider this of sufficient interest for your files please make two copies for my files.

Yours

[signature]

U.S.G.S. -

9-19-43

Wright # 2. Oct-12-1943 - Completes fishing job.
Drilled from 3923' to 3938 — Hermosa —

Oct 13th. Drilling Hermosa 3938-3951' (15 feet) — Two [illegible] offs — 1st on [illegible] [illegible] 2598'. [illegible] [illegible] [illegible] [illegible] — Two [illegible] [illegible] [illegible] — [illegible] [illegible] [illegible] [illegible] — unsafe —

Oct. 14th: Drilling Hermosa 3951 - 3979 — shut down - "pulled down" with drill pipe — filled hole with water, mud and agg. [illegible] up [illegible] [illegible] shut down [illegible] pending receipt of new or safe drill pipe — drill pipe [illegible] — Twelve fishing jobs on this well to date —

— Note — Wright #2 —

Slight [illegible] gas traces in [illegible] of Hermosa (3895): 2 3896 - 3979 at various: 50% - light grey sd. stone, 15% - [illegible], 5% - black carbonaceous shale, 20% - shale - red and [illegible] — Slight show [illegible] - not worthy of test —

Slight show oil in a stain in cuttings - no show in ditch: 3900 - 3910: light grey limey sd. stone, and, 3910 - 3920 - brownish grey sd. stone - dolomitic cement. Trace in cuttings 3920 - 3980 - slight trace by cut - no show in ditch. Does not justify test.

Both gas and oil traces in Hermosa —

These resemble in point of possibilities of production, former shows in cores taken at shallower depths. They are ~~slight~~ shows - mainly stains with no free oil - with slight trace shown by cut - Tests not justified —

OCT 16 1943

Wright # 2. Shut down — Bottom 3979' — Hermosa — Hole met —

OCT 17 1943

Wright # 2 [illegible]

Wright # 2. Shut down - waiting for drill pipe —

OCT [illegible]

[illegible] # 2. Shut down [illegible]

OCT 20 1943

[illegible]

OCT 21 [illegible]

Wright # 2. Shut down for drill pipe

OCT 22 1943

Wright # 2 — Shut down — [illegible]

OCT 23 1943

[illegible] # 2 Shut down - waiting for drill pipe

OCT 24 1943

Wright # 2 — Shut down waiting for drill pipe

OCT 25 1943

Wright # 2 — Shut down for drill pipe

OCT [illegible]

OCT 26 1943

Wright # 2. Shut down waiting drill pipe —

Wright # 2. Shut down, —

OCT 27 1943

OCT 28 1943

Wright # 2. Shut down —

OCT 29 1943

Wright # 2. Shut down —

OCT 30 1943

Wright # 2 – [illegible] fittings for drill pipe —

OCT 31 1943

Wright # 2 – Shut down for drill pipe. —
[illegible] in [illegible] drill pipe
of Wright # 1

NOV 1 - 1943

Wright # 2 – Rigging up to resume operations –
daylight —

NOV 2 - 1943

Wright # 2 – Rigging up to resume operations
transferring drill pipe taken Wright #. 1.

NOV 3 - 1943

Wright # 2 – Drilling at 3980 – (Hermosa)

NOV 4 - 1943

Wright # 2 – Drilling Hermosa at 4012' - Time
2³⁰ P.M. –

NOV 5 - 1943

Wright # 2 – Drilling Hermosa at 4041 –

NOV 6 - 1943

Wright # 2 – Drilling Hermosa 4070' –

NOV 7 - 1943

Wright # 2 – Drilling Hermosa at 4101' –

NOV 8 - 1943

Wright # 2 – Drilling in Hermosa 4135'

NOV 9 1943

Wright # 2 [illegible] [illegible] [illegible] [illegible] p.m. Mud [illegible] [illegible] [illegible] making [illegible] approach to salt —

NOV 10 1943

Wright # 2 fishing job — Recovered fish. Bottom Hermosa —

NOV 11 1943

Wright # 2 Drilling Hermosa at 4241 - Time [illegible]

NOV 12 1943

Wright # 2 — Drilling Hermosa at 4278 - Time 2[30] pm.

NOV 13 1943

Wright # 2 — Drilling Hermosa at 3414 - Time 10 AM.

NOV 14 1943

Wright # 2 — Drilling Hermosa at 4368' — Repairing drill collar — Drill pipe in bad condition — some indication of approaching close to Paradox (Salt)

NOV 15 1943

Wright # 2. Lost time because of drill collar failure. Found top of SALT at 42[illegible] (Paradox). Bottom 4372. Conditioning mud and hole to begin coring SALT —

NOV 16 1943

Wright # 2. Rigging up to core [illegible] [illegible] [illegible] drill pipe — Bottom 4372 —

NOV 17 1943

Wright # 2 - Coring - Paradox - salt, anhydrite + shale 4447' — very hard —

NOV 18 1943

Wright # 2. Coring Paradox. 4464' - Hard shale and anhydrite —

NOV 19 1943

Wright # 2 - Coring Paradox at 4475' - anhydrite and shale - (very hard) — Time 8[30] am -

NOV 20 1943

Wright # 2. Coring salt at 4522 - Time: 8[30] am
Rig shut down for swivel repairs — Note: Shut downs of this character are comparable to various other shut downs in the past due to lack of planning ahead by contractor, and inexperienced labor —

NOV 21 1943

Wright # 2

Coring salt at 4570 feet. Time 8[30] am.

NOV 22 1943

— Wright # 2 -

Coring salt at 4682' - Time 9: am -

NOV 23 1943

Wright # 2 - Fishing for drill pipe and core bit - Bottom 4709' - in salt Paradox —

NOV 24 1943

Wright #2. Took hold of fish with tap - Lost hold and dropped fish appx. 250 feet. Took new hold. Pulling fish - Time: 4:P.M. -

NOV 25 1943

Wright #2 — The fish was recovered late P.M. 11-24-43. Rig shut down for Thanksgiving at midnight of 24th - Appx. 790 feet of the drill pipe damaged also kelly. All of the pipe [illegible] recovered [illegible] to laying on the racks — Bad condition — Must all be straightened —

NOV 26 1943

Wright #2. Straightening bent drill pipe —
Hole closed — Bottom 4709' - (Salt) —

Wright #2 NOV 27 1943

Sufficient drill pipe was straightened to reach bottom (4709') and coring in salt was resumed at about 12 M. Today — The string is in bad shape and further fishing jobs may be expected — I hope not. We'll do —

Wright #2 — NOV 28 1943

Coring salt (Bender) at 4758' - Time 4:30 P.M.

Wright # 2 NOV 29 1943

Found strong gas showing while coring at 4865-68'. This show justifies drill stem test and has been so requested - Well standing under open circulation pending arrival of tester at an uncertain time - Notice of intention to make drill stem test dated Nov. 29 - has been approved and made subject to your final approval as of this date - If you desire to witness the test better come down - However, if this is not convenient I am sure you have sufficient confidence in us to make it and report our findings -

- Wright # 2 - NOV 30 1943

Hole standing under circulation to condition mud fluid preparatory to making drill-stem Test of gas showing found at 4865-4868'. Mr. Laird notified S.L. City office of showing by telephone, this date - I will get in touch with you by phone if and when it is considered necessary that you be present.

- Wright # 2 - DEC 1 - 1943

Well under mud circulation <10.7# - Vis. = 40 Sec.> preparing hole to displace old mud for new mud: <Mag. Cl + Dowell + Zogel> preparatory to making drill-stem test of gas found at 4865'-4867' -

- Wright # 2 - DEC 2 - 1943

No change over previous report -

Wright #2 ~~Wright #1~~ DEC 3 - 1943

Well [illegible] waiting for [illegible] to make [illegible] test. Waiting for Colox [illegible]

Wright #2 DEC 4 - 1943

Well [illegible] new mud and equipment to make drill-stem test - See [illegible] reports -

Wright #2 DEC 5 - 1943

No change [illegible] 42 - 48 [illegible] the same [illegible]

Wright #2 DEC 6 - 1943

No change over [illegible] 42 [illegible]

- Wright #2 - DEC 7 - 1943

No change over previous report - Waiting for testing equipment - Mud conditions about the same as formerly reported -

- Wright #2 - DEC 8 - 1943

No change over former report.

Wright #2 DEC 9 - 1943

No change over [illegible] report.

— Wright # 2 — DEC 10 1943

No change over former report, except pulled drill pipe up into 8⅝" casing for a safety ×

— Wright # 2 — DEC 11 1943

Mixing Colox and Impramix, with cement wagon, for use in quieting-hole and, displacement of Calcium Chloride mud, preparatory to making drill stem test —

— Wright # 2 — DEC 12 1943

Mixing Colox and Impramix using cement wagon and mud pumps — Cleaned hole out to bottom: 4867' — Found no cavings. Pulled drill pipe up: 200-+ - waiting for proper situation, to change mud.

— Wright # 2 — DEC 13 1943

Displaced Calcium-Chloride-brine-mud with new colox mud & pulled above packer seat sufficiently high not to disturb or cause leaching × Hole quiet. Making cellar welds preparatory to installation of gate and other control devices for 7" Tubing or Tester —

— Wright # 2 — DEC 14 1943

Ripping up to make drill stem test with packer on bottom — Hole fairly quiet —

Wright # 2 — DEC 15 1943

Run tester and set packer at 4857 feet - Could not open (port or valve). Something mechanically wrong - Pulling tester to examine - and to rerun -

Wright # 2 — DEC 16 1943

Re-run tester packer. Set packer at 4847 feet - Mud column on packer 2650 # approx. 2½" - (upset = 2⅞") tubing on packer. 6,625 # approx. Tripped valve at 2:00 PM - Packer failed immediately! No blow - Pulling wet string - To rerun and swab through tubing. Time - 3:00 PM - Messrs. Dyer, Thompson, Bailey at well at 2:AM -

Wright # 2 — DEC 17 1943

Swabbing through tubing at approx. 4800' - Swabbed to 1600 feet - Mud cut and gas showing increasing - Time 5:00 PM - Mr. Hauptmann at property - Mr. Dyer at property -

- Drought # 2 - DEC 18 1943

At 12:30 A.M. the fluid had been swabbed down to 1700' appx. Gas had been aiding the swab for several hours of swabbing and was flowing slightly through tubing (and to a greater extent through annulus) — At this time, 12:30 A.M. while pulling swab - gas under swab lifted load faster than it was being pulled — then stopped — before driller could take up the slack - Suddenly taking up slack thereafter - parted the line appx. 1000 feet above swab - Pulled tubing ~~[illegible]~~ and, stringing up to fish for swab and 1000 Appx. of swab line -

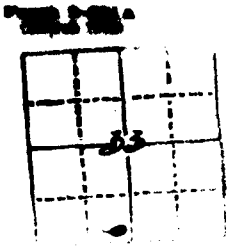
— Wright # 2 — DEC 19 1943

See previous report — Fished out lost swab and appx 1100 feet of sand line — Re-ran tubing. As A.M. I for various reasons Mr. Hauptman will understand — since he was on the derrick floor — no swabbing had been done — Various reported mechanical difficulties with the hoist — and other matters seemed to prevent or delay swabbing — Very little gas breaking through with fluid & oil at appx 1800' —

Mr. Hauptman witnessed much of preceding swabbing — a relief proposition — This is the most difficult situation — this delay — & I am glad he is here to witness other matters besides swabbing and testing —

There is much sickness here — I am not down yet — but am feeling rough — Think I should get on home tomorrow before I get down with flu, as others have and are —

Mr. Hauptman states that he will "pinch-hit" and see the test through —



(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake
Lease No. 063655
Unit P. L. Wright

ORIGINAL FORWARDED TO CASPER
DEC 23 1943

U. S. GEOLOGICAL SURVEY
OIL & GAS DIV.
DEC 21 1943
RECEIVED
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	X	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		Subsequent report of testing	X

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

December 20, 1943

Well No. 2 is located 330 ft. from {S} line and 2310 ft. from {W} line of sec. 33

SE SE SW, Sec. 33, T. 21 S., R. 19E, Salt Lake
(¼ Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Crescent Area, Grand Co., Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 4871 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

In accordance with notice of intention to make drill stem test, approved Dec. 1, 1943, tubing was run, and drilling fluid displaced with Celox weight material. Attempted to set packer at 4855', but could not get seat. Reran new packer to 4846', but failed to get seat.

Pulled packer, and ran tubing "barefooted" to approximately 4800', and commenced swabbing on morning tour Dec. 17. Pulled fluid level to 900' at 9 A.M.; to 1600' at 5 P.M., and approximately 1800' at 12 midnight. Swab line parted at 12:30, Dec. 18. Fished out swab and resumed swabbing at 5:30 P.M., Dec. 19. Fluid level was found at 800', which showed an increase of 1000' during fishing operations. The first fluid returns according to Dr. Bailey, U.S.G.S., were practically fresh, and only slightly muddy. At 9:35 P.M., swabbing

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Potash Company of America

Address Thompson, Utah

By [signature]

Title Superintendent

U. S. GOVERNMENT PRINTING OFFICE 16—6427-1

Potash Co. of America - Wright #2
Sec. 33, T.21S., R19E, Grand Co., Utah
Notice of intention to change plans, and
Subsequent report of testing.
December 20, 1943

from 2338', fluid level was at 1938'. At 10:35 P.M. returning fluid brought up fragments of red sandstone, anhydrite, and gray shale. At 11:30 P.M. fluid level was at approximately 2000' feet. Swabbing was continued until 12 noon, Dec. 20, without lowering the fluid level below 2000 feet.

In view of the fact that water is entering the hole so rapidly that with continuous swabbing the fluid level has not been lowered in more than 12 hours, it is deemed impossible to secure a positive test of the gas showing by this method. By continueing this method, a sluffing condition of the hole will unquestionably develop.

Therefore, it is our plan to remove tubing from the hole, recommence drilling operations, and continue coreing to the contract depth of 5000 feet, being governed by findings as they progressively develop. When contract depth is reached, remove drill pipe, and run casing to approximately 4825', and cement same with Halliburton Oil Well Cementing unit. Let cement set 72 hours, and drill out to below any oil and/or gas showing. Then swab thru tubing for positive test on present or any future developed gas and/or oil showing, being governed at all times by the findings as they develop.

Approved DEC 23 1943

C. A. Swanstrom

District Engineer

Copy to Cooper 1-4-43.
w/ note to attach to notice
approved 12-23-43

Thompson, Utah
December 31, 1943

Mr. C. A. Hauptman, Dist. Mgr.
U. S. Geological Survey
306 Federal Building
Salt Lake City, Utah

Dear Mr. Hauptman:

Re: F. L. Wright No. 2
Lease No. 063655, Salt Lake

While running 6-5/8" casing to 4540 on Wright No.2 over a period of 39 hours, gas from formations below had cut the mud badly until there was necessity of conditioning the mud in order to assure the possibility of pumping cement down. Delay in running casing can be attributed to various equipment failures as well as labor difficulties. We started to condition the mud about 12:30 A.M. on the morning of Dec. 30, and it was not until 9:30 A.M. that the circulating fluid was considered safe to use as a medium with which to pump cement down. At this time gas action was quieted, and the mud was fairly uniform and free from gas entrainment. At this time, after, in the meantime, carefully checking the core analysis with K. A. Gorton, geologist for Potash Company of America, we found this to be the condition of the formations in the Paradox salt section:

Halite, clear, coarse, with stringers of disseminated anhydrite 4357' to 4422'
Anhydrite; sandstone, gray, fine, dolomitic, shaly 4422' to 4480'
Halite, clear, coarse, massive 4480' to 4710'
Halite, clear and gray due to finely disseminated stringers of black shale 4710' to 4865'

Finding this to be the character of the formations, it was considered advisable to cement where we were, with the bottom of the casing at a point which would reasonably assure us of a positive test of the section below giving us the evidence of a gas show.

Therefore, we at this time introduced 200 sacks of Special Oil Well Cement with the casing bottomed at 4540', and completed pumping down the cement plug at 10:58 A.M. with a pressure on Halliburton gague of 180 lb. minimum and 320 lb. maximum, from which evidence we would judge the cement to have reached a point approximately 300 feet above the shoe at 4540'.

May this letter serve as an appendage to our notice of intention to change plans, filed Dec. 20, 1943.

Yours very truly,

T. S. Laird, Superintendent
POTASH COMPANY OF AMERICA

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GENERAL LAND OFFICE Salt Lake
SERIAL NUMBER 065655
LEASE OR PERMIT F. L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

JAN 3 - 19

State Utah County Grand Field Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of December, 1943

Agent's address Thompson, Utah *Company* Potash Company of America

Signed Thos Staunt

Agent's title Superintendent

Phone none

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
Sec.35 SE SW	21S	19E	2							

FORMATIONS PENETRATED

Name	From	To	Thickness	Date encountered
Paradox	4867	5012	145'	11-14-43 (Top Paradox - 4357')
			Depth on 12-31-43 is 5012'6"	

FORMATIONS CORED

Paradox	4867	5012	145'	11-14-43 (Top Paradod - 4357')

FORMATIONS TESTED

Name	From	To
Kayenta	2728'	4867'
Wingate		
Chinle		
Moenkopi		
Hermosa		
Paradox		

Nature of Test:

(Refer to subsequent report of testing filed Dec. 20, for detailed description of test.)
Attempted to set packer at 4855' for drill stem test, but did not get seat. Reran new packer to 4846', but did not get seat. Pulled packer and reran tubing "barefooted" to 4800', Swabbed fluid level to approximately 2000', below which it could not be lowered.

Results of test:

No oil was noted. Only a slight increase in the amount of gas from 4867' was observed.

After coring to 5012'6", ran 6-5/8" casing to 4540', and cemented with 200 sacks special oil well cement. Bailing for casing test as of 12-31-43.

NOTE.—There were _____ runs or sales of oil; _____ runs or sales of gas; _____ runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
Revised January 18, 1938

6—6363 U. S. GOVERNMENT PRINTING OFFICE

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GENERAL LAND OFFICE Salt Lake
SERIAL NUMBER 063655
LEASE OR PERMIT F. L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of January, 1944

Agent's address Thompson, Utah *Company* Potash Co. of America

Signed [signature]

Phone none *Agent's title* Superintendent

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	Remarks (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
Sec.33 SE SW	21S	19E	2							

FORMATIONS PENETRATED
none

FORMATIONS TESTED
Paradox: 4540' - 5012'6"

After 6-5/8" casing was cemented at 4540', casing was bailed down for a casing test. Also pressures of 500 lbs. and 575 lbs. placed on casing without obtaining circulation. Cementing plug and cement was then drilled out of casing.

Tubing was run to about 4900' and circulated to clean hole. Tubing was then raised to 4851', and the fluid lowered by swabbing to 3700' when a bridge of cement fragments was found in the tubing at 3719'. Tubing was raised to 4730', and the bridge broken by pumping a small amount of drilling fluid into the tubing. The new fluid level was found at 3300'. Swabbing was continued until the fluid level was believed lowered to the bottom of tubing at 4730'. In order to lower the fluid further by bailing, tubing was removed from the hole. The well was shut in with the 6-5/8" master gate. After being shut in for 10 hours a casing head pressure of 21 lbs. had formed, and this was entirely dissipated in 2 or 3 minutes after the casing was opened through a 2" valve. Before the well was shut-in, the flow of gas was not of sufficient volume to measure with a Pitot tube.

When bailing was started, the fluid level was found at 4048', although it was previously believed that swabbing had lowered it to 4730'. The fluid level was lowered by bailing to 4625', at which depth a bridge was encountered. When the bridge was broken, thick mud and cement fragments were recovered. Four trips were made with the bailer to 4875'. Then a bridge formed at about 4560'. When this bridge was broken, one was found at about 4600'. When this bridge was cleared, the bailer was run to 4750' without obstruction. Then a bridge formed at about 4630'.

When coming out of the hole, the bailer was pulled into the crown block and destroyed. Another bailer was run and encountered a bridge within the 6-5/8" casing about 300 or 400 feet above the shoe. Sanded

(Continued)

NOTE.—There were .... runs or sales of oil; .... runs or sales of gas; .... runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box CC
Taft, California

February 18, 1944

MEMORANDUM for C. H. Hauptman, Salt Lake City, Utah:

Subject:	Drilling and Testing F. L. Wright, Well No. 2
Location:	NW, NW, Sec. 10, T. 22 S., R. 19 E., S.L.M., Salt Lake City - 063655 Crescent Junction Area, Grand County, Utah
Operator:	Potash Company of America
Contractor:	Mack Drilling Company

Supervision of this operation given under assignment by H. B. Soyster to William H. Strang--Effective July 31, 1943.

I report as follows:

DRILLING BRIEF

(1) This well was drilled under a Sundry Notice approved May 29, 1943, using Rotary Equipment.
(2) Drilling commenced in Mancos Shale June 22, 1943. Drilling water was trucked from Thompson, Utah, a distance of eight miles.
(3) One hundred twenty-one feet (121') of 13" O.D. - 50# surface casing was cemented using 80 sax, by Halliburton.
(4) Thereafter, open hole was drilled from 121 feet to 2730 feet, using 9-7/8" Hughes Rock Bits, except core holes reamed from 1729-1758' in lower Summerville and upper Moab: 1762-1788', in lower Moab and upper Entrada; and 1840-2062' in Navajo and upper Kayenta, 277 feet.
(5) At this point (2730'), and, at various hole areas between 2730' and base of Mancos Shale and Fault at 1690', abnormal loss of drilling fluid to formation occured.
(6) To arrest this reported loss and for other reasons known to the contractor a string of 8-5/8" O.D. - 28# welded pipe was run, and cemented at 2728' by Halliburton using 365 sax.
(7) This casing, having successfullly stood all necessary tests, accomplished the purpose of stopping migratory loss of drilling fluid; shut off all waters above 2728' and, it is thought, obtained a measure of bit-cone conservation by and through reduction of hole diameter from 9-7/8" to 7-7/8".
(8) After testing various formations back of 8-5/8" casing through gun perforations and "Squeezing-off" same with cement retainer run on drill pipe, as hereinafter explained, open 7-7/8" hole was drilled through 8-5/8" casing from 2730' to top of Paradox formation (Salt Section) at 4357'.
(9) Thereafter, the Paradox (Salt Section) was cored from 4372' to 5012' (640) using Reed Wire Line Core Barrel.

(10) As hereinafter briefed under the headings of Oil and or/ Gas Showings and, Testing, the only gas showing justifying a test was found while coreing the Paradox formation at 4867'. This showing when found was under moderately high pressure and low volume, but temporarily sufficiently active in the mud-stream to justify changing mud as a matter of safety, and to "Quiet-the-hole" prior to attempting a drill stem test.

(11) Two attempts were made to take a drill stem test of this gas showing. Both attempts failed:

Test #1. Date - December 15, 1943; packer set at 4855'. Cause of failure: Valve would not open.

Test #2. Date - December 16, 1943; packer set at 4846'. Cause of failure: Packer would not hold.
(See Section - Drill Stem Tests)

(12) Efforts having failed to obtain a positive drill stem test of gas show at 4867', 2-1/2" I.D. tubing was run to 4800' and the fluid lowered to approximately 2000 feet by swabing through tubing. During this operation (1) no oil was found, and (2) little, if any, gas was found. (See Section - Swabing Tests).

(13) Continued swabing indicated water entering the hole at some point or points above 2000'--in all probability (1) from shot holes previously placed in 8-5/8" casing from 1725 to 1740', in lower Sumerville and upper Moab formations. These shot-holes were "scabbed-off" when cement plug and retainer were cleaned out during which operation there was strong indications of a steel bullet or bullets projecting from the inner walls of the casing; in which event, the hole or holes made by removal would permit water to enter; and/or (2) since the 8-5/8" casing was landed at 2728', two feet above a fault at 2730' in Chinle Sand Stone, it is quite possible that water might be entering the hole from Chinle or any formation above this fault. No Definite shale markers exist to prevent migration of water around set cement in annulus or through fault into casing.

(14) Because no commercially recoverable oil or gas was found by or through careful study of drill cuttings taken at 5' - 10' intervals, close ditch observation, drill stem tests, gun perforation, or otherwise, there appeared to be no justification or need for further cementing of the 8-5/8" casing when considered in the light of hole conditions then existent and the need of excluding all such conditions by the use of 6-5/8" casing cemented at greater depth in the Paradox above gas showing at 4867'.

(15) Accordingly, 4540' of 6-5/8" O.D. - 26# casing was cemented by Halliburton using 120 sax.

(16) After plug was drilled and satisfactory pressure tests made on the 6-5/8" pipe, 2-1/2" I.D. tubing was run to approximately 4900' for cleaning out purposes.

(17) Thereafter swabing was resumed through tubing and fluid lowered to 4750'

(18) To further expose gas show at 4867', tubing was pulled, and the hole bailed through 6-5/8" casing to remove bridges.

(19) During this operation the bailer was pulled into the Sand-Shieve and destroyed. (A representative stunt common to this and other operations by the contractors) A second bailer was strung up and cleaning by bailing was resumed.

(20) Before this operation succeeded in cleaning the hole to a point below gas showing at 4867', the rotten sand-line parted while pulling, dropping bailer and about 600 feet of line in the hole.

(21) Subsequent fishing with rope-spear took hold of line and while pulling, lost line and bailer--the same old rotten line having again broken while pulling fish, dropping approximately 4000' of sand line, fishing string, and fish.

(22) The above fishing jobs occured on January 9th and 10th, 1944.

(23) On January 11, 1944, because of the heavy financial burden resulting from avoidable lost time by the contractor on this and other wells in this field, Mr. Thomas S. Laird, Superintendent, for the operator, Potash Company of America, placed the contractor, Mack Drilling Company, on notice with the following shut down order:

> "This is an order for you to discontinue operations without further expense to the Potash Company of America until such time as supervising and drilling personnel can be obtained who are acceptable to the Potash Company of America, and furthermore until such time as your equipment can be conditioned and tooled in a manner acceptable to the Potash Company of America.
> This order effective as of 4 P.M., January 11, 1944."

(See section under Lost Time.)

(24) On January 11, 1944, under this order, fishing and further testing operations were temporarily discontinued until such time as new and satisfactory arrangments are concluded with respect to contractual requirements, contractual supervision, and equipment capable of doing any and all things expeditiously relative to drilling, coring, and testing properties held by the operator in this district.

(25) On January 22, 1944, the contract between the operator and Mack Drilling Company was cancelled by the operator for "Failure to perform," and the contractor was given a stipulated time in which to remove his buildings and equipment from the operator's premises.

(26) As of January 31, 1944 in compliance with this stipulation, L. H. Mack was moving <u>his share</u> of equipment from the leasehold.

(27) By the way of explanation of"his share" as mentioned in Par. 26, the drilling firm known as "Mack Drilling Company," formerly under contract with the Potash Company of America, was a co-partnership consisting of L. H. Mack, E. T. Barker, and Jo. E. Fletcher. This partnership was dissolved by mutual consent on or about January 21, 1944. It was L. H. Mack's share of the partnership property that was in process of being moved from the leasehold on January 31, 1944 in compliance with the shut-down order and stipulation herein before mentioned. It is reported that "disregard of the partnerships contractual obligations to the operator and failure to cooperate with operators' agents was the direct cause of partnership dissolution and the cancelling of contract by operator together with stipulation to remove "his share" of the equipment from the premises.

(28) As of mid-January, 1944, the Potash Company of America had carried forward negoiations to a point where a new contract had been drafted for the completion of this well. This contract with Barker and Fletcher was signed January 31, 1944. The hole was entered and fishing operations resumed on February 13, 1944.

SHUT DOWN PERIODS

(29) Aside from the shut-down here-in-above mentioned under "shut-down order" (Par. 25), there was only one extended shut-down: Effective midnight, October 14, 1943 to November 1, 1943, inclusive, the hole was left bottomed in Hermosa Formation at 5979'. This shut-down was ordered by L. H. Mack of the Mack Drilling Company without mentioning the subject or "necessity" to the Potash Company of America. Operations were resumed on November 1, 1943 against the desire of the Potash Company of America. Other operations in another well located on an adjoining leasehold being at this time of more importance than resumption of drilling in Wright No. 2.

(30) This shut-down was probably justified on the grounds of dangerously worn drill pipe which failed twelve times in this well as of October 14, 1943, resulting in an average loss of time of 224 hours. To stop further time loss, the writer obtained a "special factory directive" through official channels, for 6000 feet of 4-1/2" External Upset Internal Flush drill pipe with tool joints, for contractor's account, to use in wells operated by the Potash Company of America in the Crescent Junction Area. Steps are being taken by the new contractors to get delivery of this drill pipe for their use in the Cresecent Junction Area. Added specifications of this pipe is to equip same with "Super Shrink Grip" tool joints.

FORMATIONS PENETRATED

(31)

Formation	From	To	Thickness
1. Mancos shale	6'	1690'	1684'
(a) Sandy member	1190	1225	35
Fault - 1690'			
2. Summerville Sh. & Ss.	1690	1736	46
3. Moab sandstone	1736	1781	45
4. Entrada sandstone	1781	1818	37
5. Carmel shale	1818	1830	12
6. Navajo sandstone	1830	2045	215
7. Kayenta sandstone	2045	2340	295
8. Wingate sandstone	2340	2660	320
9. Chinle sandstone & shale	2660	2730	70
Fault - 2730			
10. Kayenta sandstone	2730	2990	260
11. Wingate sandstone	2990	3295	305
12. Chinle sandstone & shale	3295	3395	100
13. Moenkopi sandstone & shale	3395	3695	300
Unconformity - 3695			
14. Hermosa Ss., Sh., Ls.	3695	4357	662
15. Paradox salt section	4357	5012	655
Total depth - 5012'6" SLM			

(Potash Company of America's records)

FORMATIONS CORED

1. Moab sandstone	1740	1758	18
2. Moab & Entrada sandstone	1762	1789	27
3. Navajo & Kayenta sandstone	1840	2062	122
4. Wingate sandstone (taken for correlation)	5014	5024	10
5. Paradox salt section	4372	5012	640
Total cored			817'

SHOWS OF OIL AND/OR GAS

(33)

(a) Moab sandstone: - 1737' to 1755'.
Note: This show consisted of a few bands of oil stain, spots, and splotches. Schlumberger Survey and drill stem tests were made.

(b) Navajo sandstone: 1837' to 1900-1/2'.
Note: This showing consisted of streaky zones and irregular spots of oil stain along cross bedding. Strongest stains are 1890' to 1891-1/2' and 1896-1/2' to 1900-1/2'. Schlumberger Survey and drill stem test were made.

(c) Wingate sandstone: 3014' to 3024'.
Note: This show was found in a core taken to identify Wingate formation and consisted of extremely slight oil stain; spots, and splotches of dead hydrocarbon that would not cut in tetrochloride. Schlumberger survey was made.

(d) Paradox formation: 4867' -
Note: Show of gas from shale or crevice in Salt Section. Tested by swabing and bailing. (See results of tests under following sections).

TESTS FOR OIL AND/OR GAS

(34) I Schlumberger Surveys

"(a) First Survey:

Date: August 11, 1943
Depths tested: 122' - 2722'
Formations tested: Mancos, Summerville, Moab, Entrada, Carmel, Navajo, Kayenta, Wingate, Chinle.
Results of test:
The Moab sandstone was shown to have high porosity and moderately high resistivity. The high resistivity might be due either to fresh water or to oil content of the sand. A subsequent bailing test showed that the sand contained fresh water absorbed during drilling.
The electrical log showed no other possibilities of oil or gas.
The upper part of the Navajo sandstone, in which the cores showed oil stains and dead hydrocarbons from 1837' - 1900-1/2' was indicated by the electrical log to have low porosity and low resistivity, and hence to have no oil or gas possibilities. This confirmed the previous drill stem test of this area.

(b) Second Survey:

Date: Sept. 15, 1943
Depths tested: 2728' - 3380'
Formations tested: Kayenta, Wingate, Chinle,
Results of test:
No possibilities of oil and gas are indicated.
The area between 3014' and 3024' in the Wingate sandstone, which showed some dead hydrocarbon in a core taken for correlation, was indicated by the electrical log to have low resistivity and moderately low porosity, and therefore no oil or gas potentialities."

(35) II Drill Stem Tests

"(a). Moab sandstone (for show 1737'-1755'):
Date of Test: July 20, 1943
Nature of test: Packer seated at 1729', with bottom of hole at 1758', length of open hole 28.11", size of hole 9-7/8"; valve open and fluid held off of formation for 41 minutes.
Results of test: Saline and sulphurous water rose 510' in drill pipe. No oil or gas showing.

(b). Navajo sandstone (for show 1837' - 1900-1/2'):
Date of test: July 26, 1943
Nature of test: Packer seated at 1887'8" with 25'4" of anchor, bottom of hole 1913', length of open hole 25'4", size of hole 8-5/8", valve open and fluid held off of formation for 1 hour 25 minutes.
Results of test: Recovered 40' of fluid, which appeared to be mainly drilling fluid. No oil or gas showing.

(c). Paradox salt section (for gas show at 4867'):
Date of test: Dec. 15, 1943
Nature of test: Packer seated at 4855'6" with 11-1/2' of anchor, bottom of hole 4867', Apparently obtained a good seat with packer, but could not open valve to allow gas to flow into tubing.
Result of test: Had to pull packer without obtaining a test.

(d). Paradox salt section (to test gas show at 4867'):
Date of test: Dec. 16, 1943
Nature of test: Attempted to seat packer at 4846' with 21' of anchor, hole bottomed at 4867'
Result of test: Packer failed to seat, and had to be pulled without obtaining a test.

(36) III Bailing Tests - Gun Perforation

(a) Date: Aug. 22 - 24 inclusive, 1943
Formation tested: Moab sandstone
Depths tested: 1725' - 1745'
Nature of test:
Cemented 8-5/8" casing at 2728' with 365 sacks of cement by Halliburton Oil Well Cementing Co., with hole bottomed at 2728'. Allowed cement to set 72 hours. Casing perforated from 1725' to 1745' with 80 3/4" bullets as follows: (1) 20 bullets from 1725' - 1730', (2) 20 from 1730' - 1735', (3) 20 from 1735' - 1740', (4) 20 from 1740' - 1745'. Hole bailed after each group of perforations, and for 30 hours after last perforations.

(b) Results of test:

(1) No oil, gas or water after casing perforated from 1725' - 1730'. (2) Some water, and no gas after perforations from 1730' - 1735'. (3) Water came in rapidly after casing was perforated from 1735' - 1740', no oil or gas. (4) Water rose to 1077' and finally to 600' from surface after perforations from 1740' - 1745'. Casing was bailed for 30 hours, and no gas. Continued bailing exhausted drilling fluid and brought back water native to this formation.

(37) IV Swabing Tests - Gas Show at 4867'

(a) Date: Dec. 17-20-inclusive, 1943
Formations tested: Kayenta, Wingate, Chinle, Moenkopi, Hermosa, and Paradox.
Depths tested: 2728' - 4867'

(b) Nature of test: After failing to get a packer seat at 4855' for a drill stem test, tubing was run without a packer to 4800', 67' above the bottom of the hole. The fluid level was swabbed to approximately 2000', below which it could not be lowered.

(c) Results of test: No oil was noted. Little if any increase in the amount of gas from 4867' could be observed. The fact that the fluid level could not be lowered below 2000', is believed to indicate that the Kayenta and Wingate sandstones are water bearing.

(38) V Swabing and Bailing Tests

(a) Date: Dec. 27 - Jan 10 inclusive, 1943-44
Depths tested: 4540' - 5012'.
Formation tested: Paradox salt section

(b) Nature of test: After coring to 5012', 6-5/8" casing was cemented at 4540' with 120 sacks of cement by Halliburton Oil Well Cementing Co. Casing was bailed dry and found not to be leaking.

(c) Tubing was run to about 4900' and circulated to clear hole of any obstructions. Tubing was then raised to 4861', and the fluid level lowered by swabbing to 3700' when a bridge of cement fragments was found in the tubing at 3719'. Tubing was raised to 4730', and the bridge broken by pumping a small amount of drilling fluid into the tubing. The new fluid level was found at 3300'. Swabbing was continued, and the fluid level lowered to at least 4048'. With the hole voided to this depth, the flow of gas through 2" tubing was not of sufficient volume to measure with a Pitot tube in tests made by C. A. Hauptman and others.

(d) Tubing was extracted from the hole, and the well shut in with the master gate. After 10 hours, a casing head pressure of 21 lbs. had formed, and this was entirely dissipated in 2 or 3 minutes after the casing was opened through a 2" valve.

(e) The fluid level was lowered by bailing to 4625', at which depth a bridge was encountered. When the bridge was broken, thick mud and cement fragments were recovered. Four trips were made with the bailer to 4875'. Then a bridge formed at about

(e) Continued

4660'. When this bridge was broken, one was found at about 4600'. When this bridge was cleared, the bailer was run to 4750' without obstruction. Then a bridge formed at about 4630'.

(f) When coming out of the hole, the bailer was pulled into the crown block and destoryed. Another bailer was run and encountered a bridge within the 6-5/8" casing about 300 or 400 feet above the shoe. Spudded on this bridge with 5" bailer. On the way out of the hole the sand line parted; bailer and about 600' of line was lost in casing. Caught ahold of line with center spear, but on the way out of the hole, the line parted, and center spear and about 4000' of line was lost in the hole.

(39) Casing Used

1. 13" O.D., 50 lb., 10 thread, used surface casing set at 121' and cemented with 80 sacks of cement by Halliburton Oil Well Cementing company.
2. 8-5/8" O.D., A.P.I., 28 lb., used, welded casing set at 2728' and cemented with 365 sacks of cement by Halliburton Oil Well Cementing Company.
3. 6-5/8" O.D., 26 lb., 10 thread, used, screw casing set at 4540' and cemented with 120 sacks of cement by Halliburton Oil Well Cementing Company.

(40) Recapitulation - Shut Down Order

On January 11, 1944, testing was temporairly discontinued when the Mack Drilling Company was ordered to shut down in order to obtain competent supervising and drilling personnel, and to have equipment adequately tooled and conditioned. On January 22, 1944, the contract with Mack Drilling Company was cancelled for failure to perform.

PARTIAL CAUSE OF SHUT-DOWN ORDER BY POTASH COMPANY OF AMERICA

(41) (a) It is conservatively estimated that the contractor, while drilling and testing Woods Well No. 1, Lease Salt Lake 065653, lost time that could have been avoided, in the amount of 33% approximately.

(b) The following break-downs of lost time taken from Contractor's Daily tour Reports and Potash Company of America's records for this well (Wright No. 2) indicate avoidable lost time of 54.12 days = 1298.88 Hours = 29.10% of the total elapsed time of 186 days or 4464 hours, plus 10% or 39.10% - 5% = 34.10%. (See (k) and (l) under Break-downs.)

BREAK-DOWNS

(c) Avoidable lost time chargeable to Mack Drilling Company

1. Because of machinery failures:	37.87 days	= 908.88 hrs.	= 20.36%
2. Because of fishing D.P., cones, etc.:	16.25 "	= 390.00 "	= 8.74%
Total	54.12 "	1298.88 "	= 29.10%

(d) Unavoidable lost time chargeable to Potash Company of America - Operator

1. Waiting for cement to set:	4.93 days	= 118.32 hrs.	= 2.65%
2. Testing time, Halliburton and Schlumberger, etc:	32.80 "	= 787.20 "	= 17.63%
3. Rigging up and running casing:	2.45 "	= 58.80 "	= 1.32%
Total	40.18 "	= 964.32 "	= 21.60%

(e) Total elapsed time - Spud date- June 22, 1943 to December 24, 1943:

186 days = 4464 hours

(f) Charge Mack Drilling Company	54.12 days	= 1298.88 hrs.	= 29.10%
(g) Charge Potash Company of America	40.18 "	= 964.32 "	= 21.60%
Total lost time	94.30 "	= 2263.20 "	= 50.70%
(h) Effective running time	9.70 days	= 2200.80 hrs.	= 49.30%
(i) Avoidable lost time	54.12 "	= 1298.88 "	= 29.10%
(j) Unavoidable lost time	40.18 "	= 964.32 "	= 21.60%
Total elapsed days	186.00 "	= 4464.00 "	=100.00%

(k) Because of the fact that there was a conservatively estimated 10% avoidable lost time known to have taken place, but was not included in the daily tour reports, then the actual avoidable lost time is 29.10% + 10% = 39.10%.

(l) Allowing the contractor a credit of 5% for lost time which he could ill afford to loose and which is prohibitive in normal drilling operations, then the loss sustained is 34.10%. Measured in terms of man power, time, strategic materials, and money during times of war and national stress, the reader is invited to consider the action taken by Potash Company of America to cure this fault. Any other action would be in the nature of an omission and would tend to place Potash Company of America in the position of being a party to this loss.

(42) On February 29, 1944, the new contractors were successful in removing a bailer, fishing string, and wire line left in the hole by the former contractor. The well is now in condition to complete cleaning-out and final testing of the gas show herein above mentioned.

SUMMARY

(43) I Result of tests.

(a) No oil and no gas were found that could be measured with Pitot tube, or of commercial value, in any formation above the Paradox Formation (Salt Section).
(b) No oil and no gas of commercial value were found in the Paradox (Salt Section).
(c) No magnesium or potash minerals were found that could be mined or leached profitably. None were found.
(d) The well may be classified as a dry hole to 5012 feet.

(44) II Conclusion

(a) This well has been thoroughly tested for oil and/or gas to 4875'.
(b) It has been thoroughly tested for magnesium and potash minerals.
(c) The gas show in Paradox Formation at 4867' should be given final test after recovering the bailer, sand-line, and fishing string.
(d) This showing in all probability will prove to be of no practical value. (Fish was recovered 2/[illegible]/44).

(45) III P&A Requirements

(a) After final testing of this gas show, the well be plugged and abandoned by (1) filling the Paradox with cement to a point a few feet into the Chinle Formation, (2) removal of all ca ing of practical value, (3) placing of cement caps on casing stubbs is not necessary, (4) fill all hole above Paradox and cement plug with a good grade of mud fluid weighing not less than 10-1/2 lbs. per gal., (5) erect regulation marker, (6) fill all depressions and restore surface to original ground level, (7) clean up premises.
Note: Unless the Potash Company of American elects to save this well for other approved purposes.
A Sundry Notice to plug and abandon has already been made out and tentatively approved.

(46) Miscellaneous Information

(a) Operations were supervised for Potash Company of America by Thomas S. Laird, Superintendent; Harry Aurand, Consulting Geologist; and Dr. K. A. Gorton, Geologist; William Stone, Engineer; and Thomas Futch, Chemical Engineer.

(b) Drilling operations under contract with Potash Company of America, managed by L. H. Mack, former manager of the Mack Drilling Company.

(c) Dr. Bailey of the U. S. G. S. examined all Paradox Cores.

(d) A surprisingly large volume of misleading information and propaganda relative to operations found its way from the Crescent Junction Area and elsewhere to various individuals, both public and private and then to the press and radio.

(e) The effect of this was not cooperative, resulting in added expenditure of effort to correct misconceptions and to offset pressure from without in order to prevent further loss of time, and to protect intrinsic values, both public and private.

(f) The concensus of opinion among those who are still doing the work, spending the money, and making decisions based upon actual conditions--both surface and sub-surface--is that neither the operator nor Government agents on the ground, should be further meligned; or should further carry this added burden particularily during times of national stress.

(47) Reports

Daily Drillers' Tour Reports, the writer's daily reports, miscellaneous correspondence, copies of electric logs, and special reports are on file in the Salt Lake City office.

(48) Cores and logs may be inspected at the Potash Company of America's field office at Crescent Junction Area.

(49) For interviews, reference is made to the Potash Company of America's executive and field personnel who have compiled one of the most complete and accurate sets of geological information and well data it has ever been the writer's pleasure to examine.

Wm. H. Strang
Supervising Driller

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

General Land Office Salt Lake
Serial Number 063655
Lease or Permit F. L. Wright

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah *County* Grand *Field* Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of February, 19 44

Agent's address Thompson, Utah *Company* Potash Co. of America

Signed [signature]

Phone none *Agent's title* Superintendent

Sec. and ¼ of ¼	Twp.	Range	Well No.	Days Produced	Barrels of Oil	Gravity	Cu. Ft. of Gas (In thousands)	Gallons of Gasoline Recovered	Barrels of Water (If none, so state)	Remarks (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
Sec. 33 SE SW	21S.	19E.	2							

Monthly operations were as follows:

Feb. 1 - 6: Operations temporairly discontinued
" 7 -12: Barker & Fletcher, contractors, moving in equipment
" 13: Rigging up fishing tools
" 14: Pulled fish, which became stuck near top of casing
" 15: Recovered 3911' of 5/8" sand line
" 16: Pulled fish, which stuck in casing
" 17: Unscrewed and pulled casing, recovered ball of sand line
" 18: Reran casing; recovered 10' of sand line
" 19: Recovered 75' of sand line
" 20: " 65' " " "
" 21: " 80' " " "
" 22: Rigging up fishing tools, working on jet lines, etc.
" 23: " " " " " " " " "
" 24: Ran outside mill on fish; ran and engaged fish
" 25: Recovered center spear and 150' of sand line; the 50' of sand line from bailer
" 26: Fishing and working on motors
" 27: Recovered 40' of sand line
" 28: " 68' of sand line
" 29: " bailer and 30' of sand line

U. S. GEOLOGICAL SURVEY
OIL & GAS DIV.
MAR 2 - 1944
RECEIVED
SALT LAKE CITY, UTAH

ORIGINAL FORWARDED TO CASPER
MAR 2 - 1944

Note.—There were ______ runs or sales of oil; ______ runs or sales of gas; ______ runs or sales of gasoline during the month. (Write "no" where applicable.)

Note.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
Revised January 18, 1929

Potash Company of America

THOMPSON AREA EXPLORATION

DAILY REPORT

WELL NO. P. C. A. - Wright No. 2

DATE March 10, 19[illegible]

	FROM	TO	FEET	FORMATION
Depth 12:00 M 3-10 3012'				
Depth 12:00 M 3-9 3012'				
Feet Drilled 0				
Feet Cored 0				
Feet Core Recovered 0				
Mud Viscosity -				
Mud Weight (Lbs./Gal.) -				
Weather Clear and warm				

REMARKS

Continued to keep well shut-in with a gauge on the tubing and one between the tubing and casing. No gas pressure showed within the tubing. The pressure between the casing and tubing was as follows: 1 A.M. - 31 lbs., 3 A.M. - 32 lbs., 5 A.M. - 33 lbs., 7 A.M. - 35 lbs., 9 A.M. - 35.25 lbs., 11 A.M. 38 lbs., 1 P.M. - 39.5 lbs., 3 P.M. - 41 lbs. At 3 P.M. a sample of gas was taken from the casing with U.S.B.M. gas container No. 7 under approximately 40 lbs. pressure. The casing was then opened through a 2" valve and the gas allowed to blow. The gas pressure was completely dissipated in 1 minute and 30 seconds. An attempt was made to measure the volume of gas with a Pitot tube, but there was not enough flow from a 3/4" nipple to register. Ran swab through tubing to [illegible]' three times, and recovered approximately [illegible] bbls. of fluid. The above tests were witnessed by C.A. Hauptman, T.C. Lakely, R.A. Carlson, R.F. Bailey and crew. [illegible] the [illegible] on [illegible] and pulled tubing.

R. A. [illegible]

on this bridge with 5" bailer. On the way out of the hole the sand line parted; bailer and about 600' of line was lost in the casing. Caught ahold of line with center spear, but on the way out of the hole, the line parted; center spear and about 4000' of line was lost in the casing.

On January 11, 1944, testing was temporairly discontinued when the Mack Drilling Company was ordered to shut down in order to obtain competent supervising and drilling personnel, and to have equipment adequately tooled and conditioned. On January 22, 1944, the contract with the Mack Drilling Company was cancelled for failure to perform.

Mack Drilling Company is moving out equipment as of January 31, 1944.

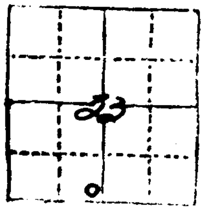
Form 9-331 a
(March 1942)

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake

Lease No. 063655

Unit Wright



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MAR 29 1944

ORIGINAL FORWARDED TO CASPER

U. S. GEOLOGICAL SURVEY
OIL & GAS DIV.
MAR 12 1944
RECEIVED
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL	X		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

March 11, 1944

Well No. 2 is located 330 ft. from [N/S] line and 2310 ft. from [E/W] line of sec. 33

SE SE SW, Sec. 33 (¼ Sec. and Sec. No.) T.21 S., (Twp.) R.19 E. (Range) Salt Lake (Meridian)

Crescent Area (Field) Grand County (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is 4871 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Having completed above well to a depth of 5012' and having encountered no oil and/ or gas of a commercial nature as witnessed by members of the U.S.G.S. and P.C.A. personnel, we submit this notice according to to the below outlined plan of procedure: Fill hole by circulation with cement introduced through tubing in stages from 5012' to 4500'. Take hardness test and measure top of cement with S.L.M. Shoot 6-5/8" casing as low as possible (4200' plus or minus) and pull same. Plug top of 6-5/8" casing with 40' of cement. Bail hole to 1950' and shoot 8-5/8" casing with 20 sticks of dynamite at 1895'. If shot loosens 8-5/8" casing, pull same up 60' to allow formation to be exposed to open hole. Test of possible oil and/or gas showing to be governed by findings. If there is no response from oil or gas, spot 20' (40sacks) cemet plug on stub of 8-5/8" casing. Remove 8-5/8" casing. Set regulation marker in cement at surface, and clean location. All space in hole between cement plugs to be filled with 11 lb. mud.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Potash Company of America

Address Thompson, Utah

Approved March 12, 1944
C A Hauptman
District Engineer

By [signature]

Title Superintendent

HALLIBURTON OIL WELL CEMENTING CO.

CEMENTING TICKET

Date 3-17-44 Place Thompsons, Utah

Charge to Potash Co. of America Order No.

Mail Address Thompsons, Utah City State

Owner of Well Potash Co. of America Contractor Fletcher & Barker

Well No. 2 Farm Wright County Grand Survey Sec. Twp. Range

Depth of well 5012 Depth of Csg. Cemtd. 4540 Casing New / Used Size 6-5/8" Weight 26# Size of Hole 7-5/8" Amount and Kind of Cement 310-Ideal

Kind of Job Plug Back Size Drill Pipe Tubing 2½ EUE Rotary ~~Cable~~ Tools ~~Steam~~ Power Truck No. 857 Truck No.

Special Tools Plugs Yes No If Plug Back From 5012 To Approx. 4445

Floating Equipment Used

Time Required Mixing and Pumping Cement 2 hrs. Press. Circulating 250# Maximum 400# Cement left in Pipe by Request Necessity Feet

Condition of Mud good Condition of well at time of Cementing good Chemical Used none

Price Reference No.	
Price Job	$225.00
Mileage Other Chg.	187.50
Total Chg.	$412.50

Truck called out 7 AM On location 8 AM Job Began 2 PM Job completed 6 PM

Material left on well

REMARKS: 1st Plug from - 5012 4546 285 sks. Cement

2nd Plug from - 4546 To 4445 25 sks. Cem.

The above job was done under the supervision of the owner, operator, or his agent whose signature appears here below:

Cementer Jno. B. Shaw Thos. S. Laird

Helper L.R. Fedrizzi Agent of Contractor or Operator

District Rocky Mt. State Wyo.

The following information is urgently requested in order that we may be fully advised and to enable us to keep our standard of service up to the highest point:

Was operation of the Cementing Equipment satisfactory? yes Was the work of the Cementing Crew performed in a satisfactory manner? yes Was the Cementing job satisfactorily completed? yes

SUGGESTIONS:

Thos. S. Laird
Agent of Contractor or Operator

Form 102—Southwestern 10M, 5-43

No. 3738 E

HALLIBURTON OIL WELL CEMENTING CO.

CEMENTING TICKET

Date 3-23-44 Place Thompsons, Utah

Charge to Potash Co. of America Order No.

Mail Address % Thos. S. Laird City Thompsons State Utah

Owner of Well Potash Co. of America Contractor Fletcher & Parker

Well No. 2 Farm Wright County Grand Survey Sec. Twp. Range

Depth of well 4445 Depth of Csg. Cemtd 2728 Casing { New / Used } Size 8-5/8" Weight 28# Size of Hole Amount and Kind of Cement 20 Ideal

Kind of Job Plug Back Size { Drill Pipe / Tubing 2½ EUE } { Rotary / Cable } Tools Power { Truck No. 857 / Truck No. }

Special Tools Plugs Yes / No If Plug Back From 2727 To Approx. 2667

Floating Equipment Used

Time Required Mixing and Pumping Cement 16 min. Press. { Circulating 200# / Maximum 300# } Cement left in Pipe by { Request / Necessity } Feet

Condition of Mud Good Condition of well at time of Cementing Good Chemical Used None

Price Reference No.

Price Job $225.00

Other Chgs.

Total Chg. $225.00

Truck called out 7 AM PM On location 8 AM PM Job Began 11:30 AM PM Job completed 12 AM PM

Material left on well

REMARKS: Spotted 20 sacks Ideal Portland Cement in 8-5/8" csg. fro. 2727 to Approx. 2665'

The above job was done under the supervision of the owner, operator, or his agent whose signature appears here below:

Cementer Jno. B. Shaw

Helper L.R. Fedrizzi

Thos. S. Laird
Agent of Contractor or Operator

District Rocky Mt. State Wyo.

The following information is urgently requested in order that we may be fully advised and to enable us to keep our standard of service up to the highest point.

Was operation of the Cementing Equipment satisfactory? yes

Was the work of the Cementing Crew performed in a satisfactory manner? yes

Was the Cementing job satisfactorily completed? yes

SUGGESTIONS:

Thos. S. Laird
Agent of Contractor or Operator

HOWCO 193—Southwestern 3585A, 50m 5-43

No. 3739 E

306 Federal Building
Salt Lake City 1, Utah

March 12, 1944.

MEMORANDUM for the File.

Well file

Report on test of gas show, 4865' to 4867', Potash Company of America, Well No. 2 (Wright), SE¼SW¼ sec. 33, T. 21 S., R. 19 E., (Salt Lake 063655).

On Sunday evening, March 5, 1944, and again on Monday evening, March 6, 1944, T. S. Laird phoned that the new 5/8" sand line would probably arrive at the well Tuesday, and swabbing of well would be started that afternoon. So notified B. W. Dyer at once.

Circulation through 2½" tubing—12' lower section of bottom joint with perforations—was maintained from 5 p.m. March 6 to 8 a.m. March 7 (Tuesday).

Started swabbing 11 a.m. Tuesday, March 7, and had voided hole to 4900' by 3 p.m. Wednesday, March 8. Put on gauges on tubing and casinghead by 5 p.m. and took first reading of casinghead pressure.

Casinghead Pressures

Wednesday, March 8, 1944	5 p.m.	0#	Thursday, March 9, 1944	*5 p.m.	24.5#
"	7 p.m.	2	"	7 p.m.	26
"	9 p.m.	5	"	9 p.m.	27
"	11 p.m.	7	"	11 p.m.	29
Thursday, March 9, 1944	1 a.m.	10	Friday, March 10, 1944	1 a.m.	31
"	3 a.m.	11	"	3 a.m.	32
"	5 a.m.	13	"	5 a.m.	33
"	7 a.m.	15	"	7 a.m.	35
"	9 a.m.	17	"	9 a.m.	36
"	11 a.m.	19.5	"	11 a.m.	38
"	1 p.m.	21	"	1 p.m.	39.5
"	3 p.m.	22.5	"	3 p.m.	41

At 3:30 p.m. Friday, March 10, 1944, swabbed 1-2 bbl. 4900'. No pounds pressure on tubing at all time.

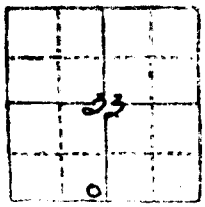
*Arrived at rig. Swabbed to 4900'.

Thursday, March 9, 1944. Arrived at well 5 ± p.m. Observed running swab pick up from pin 6" above perforations (4902' from measurement of tubing). Last of three runs less than 20' of fluid. Fluid swabbed 1-2 bbls.

Form 9-331a
(March 1942)

(SUBMIT IN TRIPLICATE)

Land Office Salt Lake
Lease No. 063655
Unit F.L.Wright



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Copy to P.C.A. % Senior 8/12/44

AUG 12 1944

U. S. GEOLOGICAL SURVEY
APR 5 - 1944
RECEIVED
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	X
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

March 30, 1944

Well No. 2 is located 330 ft. from [N] [S] line and 2310 ft. from [E] [W] line of sec. 33

SE¼ SE¼ SW¼ Sec. 33, 21 S. 19 E. Salt Lake
(¼ Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Crescent Area Grand County Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 4871 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Cleaned out hole to bottom. With tubing bottomed at 5011', Halliburton plugged bottom of hole with 285 sacks of cement. Top of cement at 4546' S.L.M. With tubing bottomed at 4542', Halliburton pumped 25 sacks of cement. Top of cement at 4445' S.L.M. After attempting unsuccessfully to shoot 8-5/8" casing, it was cut at 2965' and 2883', but could not be pulled. Cut at 2717' and removed from hole. With tubing bottomed at 2737', Halliburton pumped 25 sacks of cement. Top of cement at 2681' S.L.M. Bailed fluid down to 2025', and shot 8-5/8" casing with 30 sticks of dynamite at 1895'. Cut casing at 1612', but could not pull. C. A. Hauptman was contacted by phone by T. S. Laird on March 8 concerning attempts to recover 8-5/8" casing. In view of condition of pipe and unlikelyhood of any positive results being obtained thru further efforts to remove same, C. A. Hauptman gave verbal approval to leave same in hole and proceed with plugging and abandonment. Left 8-5/8" casing in hole, and filled with heavy mud introduced thru tubing. A 10' cement plug placed in top of 8-5/8" casing. When derrick is removed, regulation marker to be placed over location.

Inspected by District Engineer on Aug. 10, 1944 and found to be in satisfactory condition.

Company Potash Company of America

Address Thompson, Utah

By [signature]

Title superintendent

Approved AUG 12 1944

[signature]
District Engineer

Test. Hole remained voided 3 p.m. Wednesday, March 8, to 3 p.m. Friday, March 10, (48 hours) at all times below 4865-67' show. Built up pressure in casing 41# in 46 hours, giving rate of flow into voided hole of 2,000 cubic feet daily.

Friday, March 10, 1944. Attempted pitot tube measurement from 3/4" nipple on casing. Gave 0 reading 4 p.m. B. W. Dyer arrived at noon. 3 p.m. took sample of gas for analysis. 4 p.m. started pulling tubing. Finished in night.

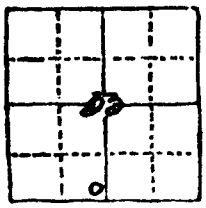
Saturday, March 11, 1944. A.m. preparing to run S. L. M. 2 p.m. ran S. L. M. Top fluid 4362' first run. 2:30 p.m. top of fluid 4381' second run. 3 p.m. top cuttings 4946' (pick up on sinker)

Shoe of 6 5/8" casing 4540'. Run to shut off caving formation at 2730', shoe at 4500'. Small leakage of fluid into hole inconsequential during test prior to and after fishing job of 5/8" sand line.

C. A. Hauptman,
District Engineer.

cc-Casper

Form 9-331 a
(March 1942)



(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Land Office Salt Lake
Lease No. 062865
Unit F. L. Wright

(ORIGINAL FORWARDED TO CASPER)
APR 7 - 1944

U. S. GEOLOGICAL SURVEY
OIL & GAS DIV.
APR 5 - 1944
RECEIVED
SALT LAKE CITY, UTAH

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		Supplementary Report of tests	X

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

March 31, 1944

Well No. 2 is located 330 ft. from {N/S} line and 2310 ft. from {E/W} line of sec. 33

SE¼ SE¼ SW¼ Sec. 33, 21 S., R. 19 E. Salt Lake
(¼ Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Crescent Area (Field) Grand County (County or Subdivision) Utah (State or Territory)

The elevation of the derrick floor above sea level is 4871 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Test of gas show in Paradox at 4865' - 4867'

After 6-5/8" casing was cemented at 4540', casing was bailed down and found not to be leaking. Also a pressure of 500 lbs. and 575 lbs. was pulled on casing without obtaining circulation. Cementing-plug and cement was then drilled out of casing.

Tubing was run to about 4900' and circulated to clean hole. The tubing was then raised to 4841', and the fluid lowered by swabbing to 3700' when a bridge of cement fragments was found in the tubing at 3719'. Tubing was raised to 4730', and the bridge broken by pumping a small amount of drilling fluid into the tubing. The new fluid level was found at 3800'. Swabbing was continued until the fluid level was believed lowered to 4730'. In order to lower the fluid level further

(Continued on Page 2)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Petroleum Company of America

Address Thompson, Utah

APR 7 - 1944
Approved
District Engineer

By

Title Superintendent

U. S. GOVERNMENT PRINTING OFFICE 16—6427-1

by bailing, tubing was removed from the hole. The well was shut in with the 6-5/8" master gate. After being shut in for 10 hours a casing head pressure of 21 lbs. had formed, and this was entirely dissipated in 2 or 3 minutes after the casing was opened through a 2" valve. Before the well was shut in the flow of gas was not of sufficient volume to measure with a Pitot tube.

When bailing was started, the fluid level was found at 4048', although it was previously believed that swabbing had lowered it to 4730'. The fluid level was lowered by bailing to 4625', at which depth a bridge was encountered in the hole. When the bridge was broken, thick mud and cement fragments were recovered. Four trips were made with the bailer to 4875'. Then a bridge formed at about 4560'. When this bridge was broken, one was found at about 4600'. When this bridge was cleared, the bailer was run to 4750' without obstruction. Then a bridge formed at about 4630'.

When coming out of the hole, the bailer was pulled into the crown block and destroyed. Another bailer was run and encountered a bridge within the 6-5/8" casing about 300 or 400 feet above the shoe. Spudded on this bridge with a 5" bailer. On the way out of the hole the sand line parted; bailer and about 600' of line was lost in the hole. Caught ahold of the line with center spear, but on the way out of the hole, the line parted; center spear and about 4000' of line were lost in the casing.

The above operations were conducted during January 1944.

On January 11, 1944, testing was temporarily discontinued when the Mack Drilling Company was ordered to shut down in order to obtain competent supervising and drilling personnel, and to have equipment adequately tooled and conditioned. On January 22, 1944, the contract with the Mack Drilling Company was cancelled for failure to perform.

On February 13, 1944 operations were resumed with Barker and Fletcher as contractors. During February the sand line, center spear, and bailer were recovered from within the 6-5/8" casing.

During March 1944 the testing operations were as follows:

March 1-5: Mud was conditioned and the hole cleaned out with a 5-3/4" fishtail slab to 5012'.

March 6: The hole was washed with a slot-perforated anchor on tubing.

March 7: Swabbing was started at 3:45 P.M., and the fluid level lowered to 2200'.

March 8: The fluid level was lowered to 4900' at 5 P.M. The hole was shut in and the following casing head pressures obtained: 5 P.M. - 0 lbs., 7 P.M. - 2 lbs., 9 P.M. - 5 lbs., 11 P.M. - 7 lbs.

March 9: The following casing head pressures were recorded: 1 A.M. - 10 lbs., 3 A.M. - 11, 5 A.M. - 13, 7 A.M. - 15, 9 A.M. - 17, 11 A.M. - 19.5, 1 P.M. - 21, 3 P.M. - 22.5, 5 P.M. - 24.5, 7 P.M. - 26, 9 P.M. - 27, 11 P.M. - 29

(Continued on Page 3)

Potash Company of America - Wright No. 2
Supplementary report of tests:
March 31, 1944

March 10: The following casing head pressures were obtained: 1 A.M. - 31 lbs., 3 AM. - 32 lbs., 5 A.M. - 33 lbs., 7 A.M. - 35, 9 A.M. - 36.25, 11 A.M. - 38, 1 P.M. - 39.5, 3 P.M. - 41. A sample of gas was collected. The casing was then opened through a 2" valve, and the gas pressure dissipated in 111 seconds. The flow of gas through a 3/4" nipple was not sufficient to measure with a Pitot tube filled with water. The swab was run to 4900' 3 times and recovered 2 bbls. of fluid. Tubing was then pulled.

March 11: Fluid top was measured at 4362' S.L.M. at 2 P.M. Cavings at 4946' S.L.M.

March 12: No operations.

March 13 Fluid top measured at 4362' S.L.M. Took a strain on the 6-5/8" casing, and found that it was not parted. Ran tubing in hole.

March 14: While waiting for the Halliburton cementing truck, it was decided to attempt to void the hole to 4900' for a second time. Started swabbing at 9:30 A.M.

March 15: Swabbed fluid level to 4585' S.L.M. Both Mission and Guiberson swabs were run, neither of which were able to further lower the fluid below 4585' with tubing bottomed at 4900' due to an accumulation of sediments, wall-cake, and drilling fluid which had infiltrated bottom hole fluid over a period of some 168 hours from the time hole was originally voided.

March 16: Pulled tubing, and prepared to plug well.

Test of Oil Stains from 1880' - 1900' in Core of Nadale Formation:

The hole was filled with cement from the total depth of 5012' to 4445', i.e. to a point 95' above the shoe of the 6-5/8" casing. The 6-5/8" casing was cut off at 2717', which is 11' above the shoe of the 8-5/8" casing. A 46' cement plug was then placed in the stub of the 6-5/8" casing and the bottom of the 8-5/8" casing from 2727' to 2681'. The 8-5/8" casing was bailed dry to 2025' and shot with 20 sticks of dynamite at 1895' at 7 P.M., March 24, 1944. The bailer was run at 7:30 P.M. and recovered 2½ bailers of brackish and sulphurous water with no trace of oil or gas. [redacted] fluid level then stood at 1955' S.L.M. Subsequent bailing likewise failed to show any traces of oil or gas.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE Salt Lake
LEASE NUMBER 062655
UNIT F. L. Wright

U.S. GEOLOGICAL SURVEY
APR 5 - 1944
RECEIVED
SALT LAKE CITY, UTAH

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Utah County Grand Field Crescent Area

The following is a correct report of operations and production (including drilling and producing wells) for the month of March, 1944,

Agent's address Thompson, Utah *Company* Potash Company of America

Signed [signature]

Phone none *Agent's title* Superintendent

SEC. AND ¼ OF ¼	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
Sec. 33 SE SW	21S.	19E	2							

FORMATIONS PENETRATED
none

FORMATIONS TESTED
Paradox and Navajo

ORIGINAL FORWARDED TO CASPER
APR 7 - 1944

Date in March: Operations were as follows:

1-5: Conditioned mud and cleaned out hole to 5012' with 5-3/4" fishtail slab.
6: Washed hole with slot-perforated anchor on tubing.
7: Started swabbing at 3:45 P.M.; swabbed fluid level to 2300'.
8: Swabbed fluid level down to 4900' at 5 P.M. Closed hole and obtained the following casing head pressures: 8 P.M. - [illegible] lbs., 9 P.M. - 2 lbs., 9 P.M. - 5 lbs., 11 P.M. 7 lbs.
9: Casing head pressures recorded as follows: 1 A.M. - 10 lbs., 3 A.M. - 11, 5 A.M. - 13, 7 A.M. - 15, 9 A.M. - 17, 11 A.M. - 19.5, 1 P.M. - 21, 3 P.M. - 22.5, 5 P.M. - 24.5, 7 P.M. - 26, 9 P.M. - 27, 11 P.M. - 29.
10: Casing head pressures were as follows: 1 A.M. - 31 lbs., 3 A.M. - 32, 5 A.M. - 33, 7 A.M. - 35, 9 A.M. - 36.25, 11 A.M. - 38, 1 P.M. - 39.5, 3 P.M. - 41. Collected sample of gas. Casing opened thru 2" valve, and gas pressure dissipated in 111 seconds. Flow of gas through a 3/4" nipple was not sufficient to measure with Pitot tube filled with water. Ran swab to 4900' 3 times and recovered 2 bbls. of fluid. Pulled tubing.
11: Fluid top measured at 4962' S.L.M. at 2 P.M. Cavings at 4946' S.L.M.
12: No operations.
13: Fluid top at 4961' S.L.M. Took strain on 6-5/8" casing and found that it was not parted. Ran tubing in hole.
14: While waiting for Halliburton, started swabbing at 9:30 A.M.

(Continued on page 2)

NOTE.—There were ..... runs or sales of oil; ..... M. cu. ft. of gas sold;
..... runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329
October 1941

16—26766-1 U. S. GOVERNMENT PRINTING OFFICE

Potash Company of America - Wright No. 2
Monthly operations for March 1944

Date in March: Operations were as follows:

15: Swabbed fluid level to [illegible]'. Both Mission and Guiberson swabs were run, neither of which were able to further lower the fluid below 4585' with tubing bottomed at 4900' due to an accumulation of sediments, wall-cake, and drilling fluid, which had infiltrated bottom hole fluid over a period of some 168 hours from the time hole was originally voided.

16: Pulled tubing. Fluid top at 4585' S.L.M. Ran 5-3/4" bit on tubing and cleaned hole to bottom. Pulled tubing.

17: Ran tubing to 5011'. Plugged bottom of hole with 285 sacks cement introduced through tubing by Halliburton. Top of cement at 4546' S.L.M. With tubing bottomed at 4542' Halliburton pumped 25 sacks of cement. Top of cement at 4445' S.L.M. Started pulling tubing.

18: Pulled tubing. Tried unsuccessfully to shoot-off 6-5/8" casing.

19: Bit ran on tubing, and hole found unobstructed.

20: Cut 6-5/8" casing with Bowen cutter at 3965'.

21: Casing would not pull free. Cut at 2983', but could not pull.

22: Cut 6-5/8" casing at 2717', and started to remove it from the hole.

23: Finished pulling 6-5/8" casing. With tubing bottomed at 2727', Halliburton pumped 25 sacks of cement. Pulled tubing.

24: Bailed 8-5/8" casing to 2035'. Top of cement plug at 2681' S.L.M. Shot 8-5/8" casing with 20 sticks dynamite at 1805' at 7 P.M. Ran bailer at 7:30 P.M. and recovered 2½ bailers of brackish and sulphurous water with no trace of oil or gas. Fluid level then stood at 1955' S.L.M.

25: Attempted unsuccessfully to pull 8-5/8" casing. Cut casing at 1512', but would not pull free.

26: Attempted unsuccessfully to pull casing. Mixed heavy mud.

27: Left 8-5/8" casing in hole, and filled with 11 lb. mud introduced through tubing.

28: Laid down tubing. Put a 20' cement plug in top of 8-5/8" casing.

14

Form 9-330

LOCATE WELL CORRECTLY

U. S. LAND OFFICE Salt Lake City
SERIAL NUMBER 063655
LEASE OR PERMIT TO PROSPECT Lease

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MAY - 5 1944

ORIGINAL FORWARDED TO CASPER

U. S. GEOLOGICAL SURVEY OIL & GAS DIV. MAY - 4 1944 RECEIVED SALT LAKE CITY, UTAH

LOG OF OIL OR GAS WELL

Company Potash Company of America Address Thompsons, Utah

Lessor or Tract Wright Field Crescent Area State Utah

Well No. 2 Sec. 33 T. 21S R. 19E Meridian Salt Lake County Grand

Location 330 ft. {N. / S.} of S Line and 2310 ft. {E. / W.} of W Line of Sec. 33 Elevation 4871' (Derrick Fl.) 4865' G.L.
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed Thos S. [illegible]

Date May 4, 1944 Title Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling June 22, 1943 Finished drilling December 24, 1943

OIL OR GAS SANDS OR ZONES
(Denote gas by G)

No. 1, from ______ to ______ No. 4, from ______ to ______

No. 2, from ______ to ______ No. 5, from ______ to ______

No. 3, from ______ to ______ No. 6, from ______ to ______

IMPORTANT WATER SANDS

No. 1, from ______ to ______ No. 3, from ______ to ______

No. 2, from ______ to ______ No. 4, from ______ to ______

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
13" OD	[illegible]		Used	121					
6-5/8"	[illegible]			[illegible]					
8-5/8"	[illegible]			2720					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
13" OD	121	80 Sacs. cement	Halliburton		
6-5/8"	4540	200 Sacs. cement	"		
8-5/8"	2720	365 Sacs. cement	"		

MARK

FOLD

PLUGS AND ADAPTERS

Heaving plug—Material ..... Length ..... Depth set .....

Adapters—Material ..... Size .....

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 1712'6" feet, and from ..... feet to ..... feet

Cable tools were used from ..... feet to ..... feet, and from ..... feet to ..... feet

DATES

....., 19..... Put to producing ....., 19.....

The production for the first 24 hours was ..... barrels of fluid of which ..... % was oil; ..... % emulsion; ..... % water; and ..... % sediment. Gravity, °Bé. .....

If gas well, cu. ft. per 24 hours ..... Gallons gasoline per 1,000 cu. ft. of gas .....

Rock pressure, lbs. per sq. in. .....

EMPLOYEES

....., Driller ....., Driller

....., Driller ....., Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	6	6	Rotary table is 6' above surface
			MANCOS
6	30	24	Shale, yellowish-brown, sandy, limonitic, soft; and Shale, gray, sandy; Selenite
30	1190	1160	Shale, dark gray, limy, slightly sandy
1190	1225	35	Sandstone, light gray and gray, fine, limy
1125	1690	465	Shale, dark gray, limy, slightly sandy; some gray sandy, shale
			(Fault or unconformity causing loss of approximately 1250' of normal section, consisting of 100' of Mancos above Ferron, 40' of Ferron, 980' of Mancos below Ferron, 20' of Dakota, and 740' of Morrison)
			MORRISON
1690	1710	20	Shale, brownish-red; Sandstone, white, light gray, greenish-gray, light brown, brownish-red; Limestone, light pink to pinkish-gray; Calcite
1710	1736	26	Shale, red, light orange-red, sandy; Sandstone, red to light orange-red, fine, shaly; Calcite
			SUAB
1736	1781	45	Sandstone, white to very light gray, medium grained and uniform, subround to round; a few bands of oil saturation 1/8" to 3/4" thick from 1737-1755, decreasing to splotches of saturation and finally disappearing in lower part; cored

(OVER)

FORMATION RECORD—Continued

CONFIDENTIAL — CRESCENT - Grand County — JUN 1943

33-21S-19E SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright; S.L.063655); Ref. No. 3

STATUS: Drg - T.D. 292' (R. A. Pierce 6-27-43)

JUN 1943

REMARKS: NEW DRILLING WELL. Drilling commenced June 22, 1943, in the Mancos Shale. On June 26, set 123' of 12½" O. D. conductor casing.

CONFIDENTIAL — CRESCENT - Grand County — JUL 1943

33-21S-19E SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright) (S.L. 063655); Ref. No. 3

STATUS: Drg - T.D. 2172' (L. H. Mack 7-31-43)

REMARKS: Drilling started in the Mancos Shale and without penetrating Dakota, Morrison, ~~Summerville~~, or ~~Upper Navajo~~, perhaps due to faulting, the middle member of the Navajo was encountered immediately below the Mancos. Well is now drilling in the Kayenta in a hard white sandy lime. In the Navajo at 1730-1758' (cored from 1740-1758') spots of light saturation were evident from 1740-1758'. The tester was set at 1730' and after remaining open 41 minutes, 510' of water and no show of oil was found. Another show of light oil 100% saturation was encountered at 1896-1901'. The Halliburton tester was set at 1888' and remained open for an hour and thirty-five minutes. No favorable indications of oil, gas, or even water were evident. From this point on, the remaining section of the Navajo, and thus far in the Kayenta, has carried no evidence of oil or gas.

CONFIDENTIAL

AUG 1943

33-21S-19E SE SE¼SW¼, CRESCENT - Grand County, Potash Company of America, Well No. 2 (Wright)(S.L. 063655); Ref. No. 3

STATUS: Drg - T.D. 2830' (W. H. Strang 8-31-43)

REMARKS: At a depth of 2728' the contractor requested that the well be cased and same cemented in order to prevent loss of mud. On August 19, CC 8 5/8" with 350 sacks, which cemented off the shows reported in last month's write-up between 1700' and 1990'. After cement had thoroughly set back of the casing to an estimated point 1300' from the surface, the casing was gun perforated with forty 3/4" shots on the 22d, between 1725' and 1745'. No oil or gas was evident, but the hole filled to within 400' of the top with fresh water which appeared to be from the drilling mud rather than the saline water in the formation. Bailing continued for 48 hours and water salinity increased, but no evidence of oil or gas showed up although the hole was bailed down to a point opposite the lower shots. Halliburton was again called and a squeeze job was applied, cementing off the shot holes. The Potash Company requested that perforation of the richer oil shows, indicated from the cores at approximately 1900', and testing of same be suspended until after the lower formations have been drilled; that the test at 1900' be made at the time the well is P&A. This request has been granted, at least for the time being, and drilling has been resumed from 2728' to 2830'. A correction is to be made in the first sentence of last Month's remarks. Regarding formations encountered, only the Dakota and Morrison were not penetrated, the Summerville and Upper Navajo were present in the column.

CONFIDENTIAL
33-21S-19E

CRESCENT - Grand County

SEP 1943

SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright) (S.L. 063655); Ref. No. 3

STATUS: Drg - T.D. 3682' (W.H. Strang 9-30-43)

REMARKS: Drilling continued in the Kayenta to 2990', the Wingate to 3295', the Chinle to 3395', and the Moenkopi still drilling. On September 3, 10' of Wingate, 3014' - 3024', was cored with slight oil shows. On September 15, supplementary Schlumberger electric survey was run from the bottom of the 8 5/8" casing at 2728' to bottom, 3305'. The Paradox (salt) contact has not been reached as yet.

CONFIDENTIAL
33-21S-19E

CRESCENT - Grand County

SE SE¼SW¼, Potash Company of Amerida, Well No. 2 (Wright)(S.L. 063655); Ref. No. 3

OCT 1943

STATUS: Drg - T.D. 3979' (Visited 10-29-43)

REMARKS: Now drilling in Hermosa. Until a more correct figure is obtained from the operator, the top of the Hermosa is believed to be 3780'. Have not as yet penetrated the Paradox (Salt). Because of the badly worn drill pipe joints and numerous twist-offs resulting in delaying fishing jobs, operations were temporarily suspended on October 14. Will be resumed as soon as drill pipe is available from Woods No. 1 well which is reaching its 5,000-foot objective. Although slight traces of oil were evident in the cuttings of dolomitic sandstone at 3920' to 3980', there was no appreciable evidence of shows on the ditch.

OCT 1943

CONFIDENTIAL
33-21S-19E

CRESCENT - Grand County NOV 1943

SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright); (Salt Lake 063655); Ref. No. 3

STATUS: Drg - T.D. 4867' (Visited 11-24-43)

REMARKS: Top of Paradox (salt) encountered at 4357'.

NOV 1943

Considerable difficulty has been experienced by twist offs and shut downs as a result of worn out drilling equipment which the contractor has been unable to replace because of lack of priorities from the WPB. Included in these difficulties is the dropping of approximately 700' of drill pipe a distance of 275 feet, which badly corkscrewed the pipe. The crew has been able to sufficiently straighten enough, however, to continue drilling. On November 29, at 3:30 a.m., a strong surge of gas appeared on the discharge of the mud pits, coming from the formation at 4865-67'. Operator is now preparing to run a wall packer on the 2 7/8" string of upset tubing set at a point immediately above the top of the show, void the hole by swabbing, and make a thorough test of this show.

CONFIDENTIAL CRESCENT - Grand County DEC 1943

33-21S-19E SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright), (Salt Lake 063655), Ref. No. 3

STATUS: Drg - T.D. 5012' (Visited 12-20-43)

REMARKS: From Dec. 16 to 19, hole was swabbed continuously, but fluid level could be lowered only to a point 2000' from the surface, showing that water was coming into the hole. Also, considerable evidence of gas was showing because of the frothiness of the mud. During the test, swab was lost for a period of 40 hours and the fluid level rose from 1800' to 800' from the surface. Upon resumption of swabbing the top of the fluid was almost a fresh water which indicated that a leak had developed, possibly at the 80 3/4-inch perforations at 1725' to 1745', which had been given a squeeze job by Halliburton. The result of the drill stem test at the perforations, as previously reported, showed a large amount of fresh water. Drilling was continued from 4867' to the objective, 5000'. In fact, on December 24, the hole was cored to 5012½', final total depth, in halite carrying anhydrite lens. Operator then received approval to run and cement a string of 6 5/8" casing to shut off water source, probably at the gun perforations or just immediately below the 8 5/8" shoe at 2728' in a fault. The casing point was originally intended to reach to 4860' (top of Paradox (salt) 4357') however, due to lack of sufficient casing, no evidence in cores of gas, oil or water between 4500' and 4860', and difficulty from pipe friction, it was decided to carry the pipe to only 4540' where it was cemented on December 30 with 200 sacks. This amount of cement should have reached to the 3700-foot point, but very probably, because of enlarged hole, caving, and leaching, reached only to 4200', approximately 150' above the top of the salt. The operator is now preparing to drill out the cement plug, re-run the tubing to bottom, and start swabbing in order to test the active gas show from 4865' to 4867'4.

CONFIDENTILA CRESCENT - Grand County JAN 1944 (Wright)
33-21S-19E SE SE¼SW¼, Potash Company of America, Well No. 2 (Sinkin), (Salt Lake 063655), Ref. No. 3

STATUS: Tg. - T.D. 5012'

REMARKS: Swabbing ~~was~~ continued and the fluid level was lowered to within approximately 200' of the gas show at 4865' to 4867'. Considerable difficulty was experience in running the swab and bailer, and much time was consumed because of inadequate equipment and incompetent crews, which finally resulted in the district engineer shutting down operations on January 10, until conditions are substantially improved. Although considerable gas agitation was evident when the hole stood full of mud, there was as the fluid level was lowered, no appreciable increase in the gas show, and it was not measurable by pitot tube at the 2" connection at the well head, ~~[illegible]~~ The results have been very disappointing. The test has not been completed as required (voiding hole to bottom). Operator is now preparing to rig up new equipment, having dismissed the drilling contractor, L. H. Mack. Mr. Tom Laird, P. C. A. drilling superintendent, ~~has~~ now in complete charge of ~~the~~ operations, will directly employ competent crews and contine the test. On January 9, driller McCallister, pulled the 4" bailer into the crown block. Later, ~~while~~ another bailer was ~~being~~ run and it was lost in the hole with 600' of 5/8" sand line. While fishing for this, a spear and approximately 5000' of additional line was lost in the hole. Inasmuch as the hole is cased with 6 5/8" pipe to 4540', the operator does not contemplate difficulty in removing the line and tools ~~and completing the test.~~

UTAH SLM
CONFIDENTIAL
33-21S-19E

CRESCENT - Grand County FEB 1944

SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright), (Salt Lake 063655), Ref. No. 3

STATUS: Tg. - T.D. 5012'

REMARKS: Operations resumed February 13, by new contractor, Barker and Fletcher, under direct supervision of PCA's superintendent, Thos. S. Laird. All sand line, bailer, and center spear, has been fished out of the hole. Found bailer resting on top of shoe of 6 5/8" casing at 4511'. Will fill hole with mud and circulate to clean out cuttings, etc. preparatory to again voiding hole for test of gas show at 4865'.

FEB 1944

CONFIDENTIAL
33-21S-19E

CRESCENT - Grand County

SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright), (Salt Lake 063655), Ref. No. 3

STATUS: Abd. Dry Hole or Failure - T.D. 5012' (Visited 3-25-44)

MAR 1944

REMARKS: Test of gas show at 4865' was conducted, under observation of district engineer, by voiding hole to 4900'. Hole remained voided from 5 p.m. March 8, to 3 p.m. March 10. Two intermittent runs through the tubing were made with the swab during this period to assure that formation at 4865' was open to the annular space between tubing and walls of the hole. In order to ascertain the rate of flow and the volume of gas into the hole, the casinghead was closed at 5 p.m. on March 8. The pressure build-up on the annular space showed a uniform increase of approximately one pound hourly, pressure readings being taken at two-hour intervals. After 46 hours, pressure on the casinghead registered 41#, no pressure on the tubing inasmuch as the swab at no time went below the perforations in the tubing. From the data obtained, the rate of flow was computed to be 2,000 cubic feet daily of

1944 MAR

Continued On Next Sheet

(continued from preceding sheet)

a rich, sweet gas, sample of which was taken from the casinghead immediately after completion of the test. This sample was forwarded to Casper for analysis. On March 12, sundry notice to abandon this well was approved, and in accordance with Mr. E. W. Dyer's request, the entire salt column from bottom, 5012', to 4445', top of salt 4357', was filled (Halliburton) with neat cement. The hole was then mudded to 2025' in the 6 5/8" casing, which had been cemented with 200 sacks. On March 24, at 1895' the 6 5/8" casing was shot with twenty sticks of 40% gelatin to test the 1900-foot reported show. As a result a brakish water with H_2S odor came in and filled the hole to 1955', apparently an accumulation of drilling fluid from the slightly porous formation at 1890' to 1900'. In the sample of this fluid bailed from the hole, there was no evidence whatsoever of oil or gas. This test corroborated the drill-stem test made in July at this point, as well as the interpretation of the Schlumberger electric log. Test was made in accordance with district engineer's letter of November 29. Inasmuch as the operator attempted to pull the remaining casing without success after shooting at various points up to 1000', tubing was re-run and a heavy 11# mud circulated from the top of the cement plug at 4445' to the surface. At this point cement plug was placed in the 6 5/8" and a regulation marker set. The pits are now being filled and location cleaned up.

CONFIDENTIAL CRESCENT - Grand County APR 1944

33-21S-19E SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright), (Salt Lake 063655), Ref. No. 3

STATUS: Abd - T.D. 5012' (Visited 4-25-44)

APR 1944

REMARKS: Correction - 6-5/8" casing cut at 2717' and pulled. At 2727' a 25-sack plug set on stub of 6-5/8". Top of plug at 2681'. Unable to recover 8-5/8" casing. Regulation marker placed in top of 8-5/8" casing. Crew now tearing down rig preparing to move equipment off location.

CONFIDENTIAL CRESCENT - Grand County MAY 1944

33-21S-19E SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright), (Salt Lake 063655), Ref. No. 3

STATUS: Abd - T.D. 5012'

MAY 1944

REMARKS: Crew is still cleaning location, and highway equipment is in the process of filling mud pits and leveling off well site.

CRESCENT - Grand County JUN 1944

33-21S-19E SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright), (Salt Lake 063655), Ref. No. 3.

STATUS: Abd - T.D. 5012' (Tom Laird [illegible]-44)

JUN 1944

REMARKS: [illegible] Bulldozer [illegible] now at work cleaning up location.

CRESCENT - Grand County JUL 1944

33-21S-19E SE SE¼SW¼, Potash Company of America, Well No. 2 (Wright), (Salt Lake 063655), Ref. No. 3

STATUS: Abd - T.D. 5012'

JUL 1944

REMARKS: Plugging and abandonment work completed. Waiting on final inspection.

AUG 1944

CRESCENT - Grand County

33-21S-19E SE SE¼SW¼, Potash Company of America Well No. 2 (Bright, Salt Lake 063655), Ref. No. 3

STATUS: P&A - T.D. 5012' (Visited 8-10-44)

REMARKS: DRY HOLE & FAILURE. Final inspection made August 12. Subsequent report of abandonment approved August 12. IWR replacement sheet submitted to Casper August 12.

AUG

Salt Lake [illegible]

[illegible] Sec. 33, T 21 S., R. 19 E.

Potash Co. of America

Wright No. 2

Crescent Area, Grand Co., Utah

Self Potential
Millivolts

Resistivity
~/M/M~

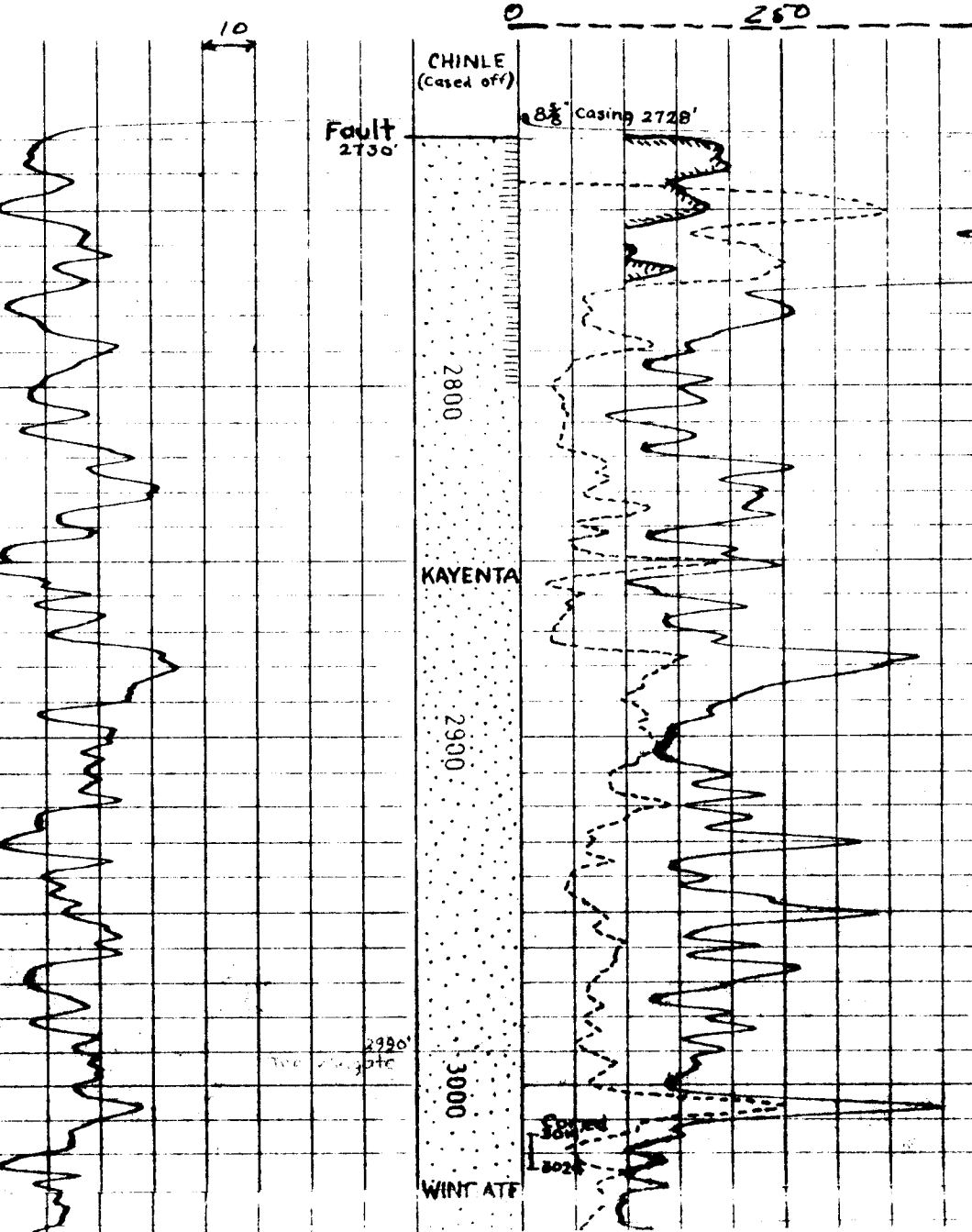
Preliminary

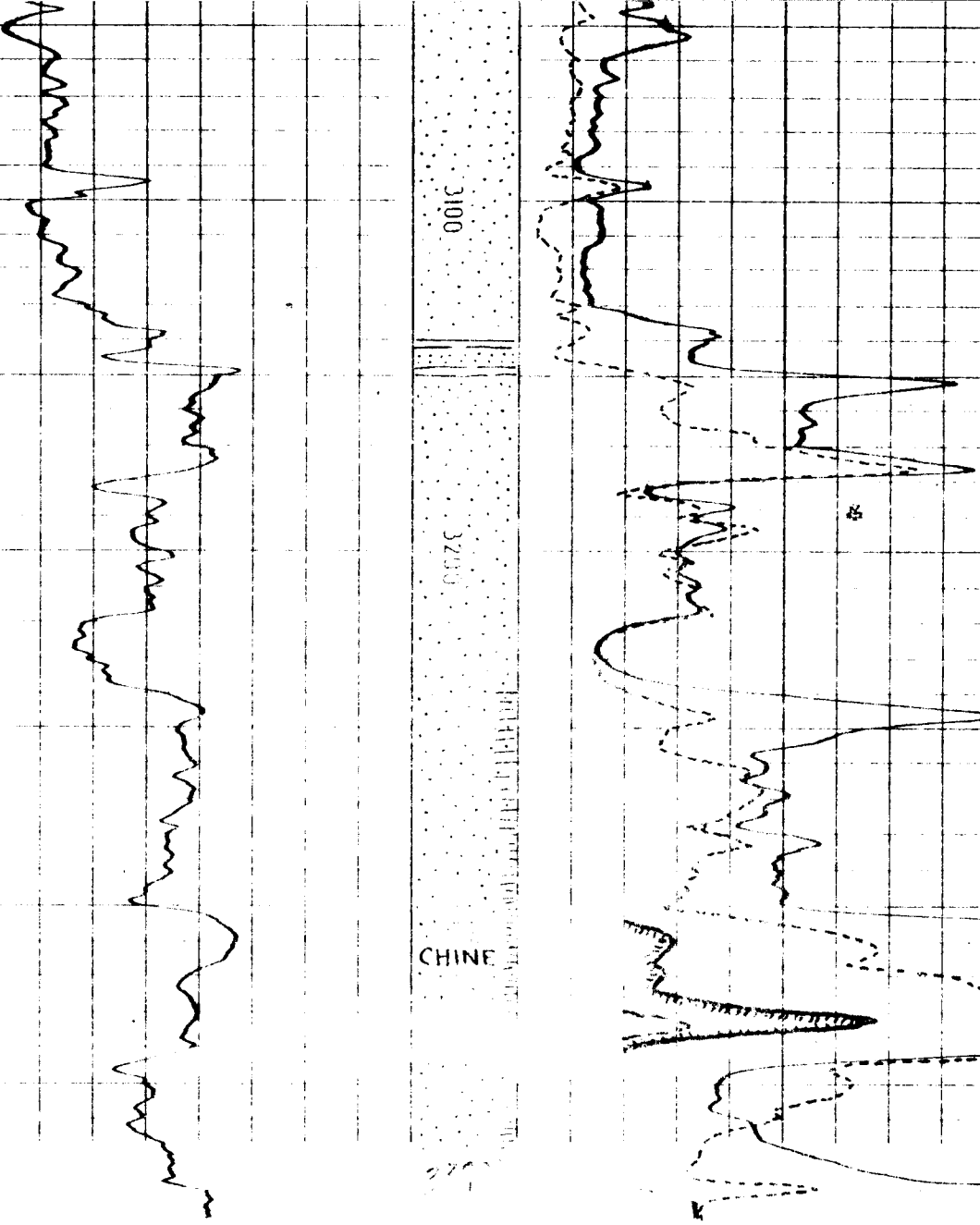
0 Normal 25

0 125

0 Lateral 25

0 250





Top Salt 4357'

Sec 33 - 21S - 19E
43-019-11498

Log of testing operations

POTASH COMPANY OF AMERICA - WRIGHT NO. 2 WELL

Location: SE¼ SE¼ SW¼, Sec. 33, T. 21 S., R. 19 E. 330' from the S., 2310' from the W. line of Sec. 33, Crescent Area, Grand Co., Utah

Elevation: 4871' (Rotary table), 4865 (Ground)

FORMATIONS PENETRATED:

Formation:	From:	To:	Thickness:
1. Mancos shale	6'	- 1690'	1684'
(a). Sandy member	1190'	- 1225'	35'
Fault - 1690'			
2. Summerville Sh. & Ss.	1690'	- 1736'	46'
3. Moab sandstone	1736'	- 1781'	45'
4. Entrada sandstone	1781'	- 1818'	37'
5. Carmel shale	1818'	- 1830'	12'
6. Navajo sandstone	1830'	- 2045'	215'
7. Kayenta sandstone	2045'	- 2340'	295'
8. Wingate sandstone	2340'	- 2660'	320'
9. Chinle sandstone & shale	2660'	- 2730'	70'
Fault - 2730'			
10. Kayenta sandstone	2730'	- 2990'	260'
11. Wingate sandstone	2990'	- 3295'	305'
12. Chinle sandstone & shale	3295'	- 3395'	100'
13. Moenkopi sandstone & shale	3395'	- 3695'	300'
Unconformity - 3695'			
14. Hermosa Ss., Sh., Ls.	3695'	- 4357'	662'
15. Paradox salt section	4357'	- 5012'	655'
Total depth - 5012'6" SLM.			

FORMATIONS CORED:

Formation:	From:	To:	Thickness:
1. Moab sandstone	1740'	- 1758'	18'
2. Moab & Entrada sandstone	1762'	- 1789'	27'
3. Navajo & Kayenta sandstone	1840'	- 2062'	122'
4. Wingate sandstone (taken for correlation)	3014'	- 3024'	10'
5. Paradox salt section	4372'	- 5012'	640'

Potash Company of America - Wright No. 2. Testing operations

SHOWS OF OIL AND/OR GAS:

Formation:	From:	To:	Nature of show:
1. Moab sandstone	1737'	1755'	A few bands of oil saturated 1/8" to 3/4" wide decreasing to splotches and finally disappearing. Tested by: drill stem test, Schlumberger survey, and bailing test.
2. Navajo sandstone	1837'	1900½'	Streaky zones and irregular splotches of oil saturation along cross-bedding. Best saturation 1890'-1891½' and 1896½'-1900½'. Tested by: drill stem test and Schlumberger survey.
3. Wingate sandstone	3017'	3020'	Oil stain and dead hydrocarbon; no oil with carbon tetrachloride. Treated by: Schlumberger survey and swabbing test.
4. Paradox formation	4867'		Show of gas from shale. Tested by swabbing test and swabbing and bailing test.

Potash Company of America - Wright No. 2 Testing operations

TESTS FOR OIL AND/OR GAS:

1. DRILL STEM TEST:

(a). Moab sandstone (for show 1737' - 1755'):
Date of test: July 20, 1943
Nature of test: Packer seated at 1729'1" with bottom of hole at 1758', length of open hole 28'11", size of hole 9-7/8"; valve open and fluid held off of formation for 41 minutes.
Results of test: Saline and sulphurous water rose 510' in drill pipe. No oil or gas showing.

(b). Navajo sandstone (for show 1887' - 1900½')
Date of test: July 26, 1943
Nature of test: Packer seated at 1887'8" with 25'4" of anchor, bottom of hole 1913', length of open hole 25'4", size of hole 8-5/8", valve open and fluid held off of formation for 1 hour 25 min.
Results of test: Recovered 40' of fluid, which appeared to be mainly drilling fluid. No oil or gas showing.

(c). Paradox salt section (for gas show at 4867'):
Date of test: Dec. 15, 1943
Nature of test: Packer seated at 4855'6" with 11½' of anchor, bottom of hole 4867', Apparently obtained a good seat with packer, but could not open valve to allow gas to flow into tubing.
Result of Test: Had to pull packer without obtaining a test.

(d). Paradox salt section (to test gas show at 4867'):
Date of test: Dec. 16, 1943
Nature of test; Attempted to seat packer at 4846' with 21' of anchor, hole bottomed at 4867'
Result of test: Packer failed to seat, and had to be pulled without obtaining a test.

Potash Company of America - Wright No. 2 Testing operations

TESTS FOR OIL AND/OR GAS (Continued):

2. SCHLUMBERGER ELECTRICAL WELL-SURVEYS:

(a). First Survey:

Date: Aug. 11, 1943
Depths tested: 122' - 2722'
Formations tested: Mancos, Summerville, Moab Entrada, Carmel, Navajo, Kayenta, Wingate, Chinle.
Results of test:

The Moab sandstone was shown to have high porosity and moderately high resistivity. The high resistivity might be due either to fresh water or to oil content of the sand. A subsequent bailing test showed that the sand contained fresh water absorbed during drilling.

The electrical log showed no other possibilities of oil or gas.

The upper part of the Navajo sandstone, in which the cores showed oil stains and dead hydrocarbons from 1837' - 1900½' was indicated by the electrical log to have low porosity and low resistivity, and hense to have no oil or gas possibilities. This confirmed the previous drill stem test of this area.

(b). Second Survey:
Date: Sept. 15, 1943
Depths tested: 2728' - 3380'
Formations tested: Kayenta, Wingate, Chinle
Results of test:

No possibilities of oil and gas are indicated.

The area between 3014' and 3024' in the Wingate sandstone, which showed some dead hydrocarbon in a core taken for correlation, was indicated by the electrical log to have low resistivity and moderately low porosity, and therefore no oil or gas potentialities.

Potash Company of America - Wright No. 2 Testing operations

TESTS FOR OIL AND/OR GAS (Continued):

3. BAILING TEST:

Date: Aug. 22 - 24 inclusive, 1943
Formation tested: Moab sandstone
Depths tested: 1725' - 1745'
Nature of test:
Cemented 8-5/8" casing at 2728' with 265 sacks of cement by Halliburton Oil Well Cementing Co., with hole bottomed at 2728'. Allowed cement to set 72 hours. Casing perforated from 1725' to 1745' with 80 3/4" bullets as follows: (1) 20 bullets from 1725' - 1730', (2) 20 from 1730' - 1735', (3) 20 from 1735' - 1740', (4) 20 from 1740' - 1745'. Hole bailed after each group of perforations, and for 30 hours after last perforations.
Results of test:
(1) No oil, gas or water after casing perforated from 1725' - 1730'. (2) Some water, slight rainbow of oil, and no gas after perforations from 1730' - 1736'. (3) Water came in rapidly after casing was perforated from 1735' - 1740', no oil or gas. (4) Water rose to 1077' and finally to 600' from surface after perforations from 1740' - 1745'. Casing was bailed for 30 hours with only a very slight rainbow of oil showing, and no gas.

4. SWABBING TEST (to test gas show at 4867'):

Date: Dec. 17 - 20 inclusive, 1943
Formations tested: Kayenta, Wingate, Chinle, Moenkopi, Hermosa, and Paradox.
Depths tested: 2728' - 4867'
Nature of test:
After failing to get a packer seat at 4855' for a drill stem test, tubing was run without a packer to 4800', 67' above the bottom of the hole. The fluid level was swabbed to approximately 2004', below which it could be lowered.
Results of test:
No oil was noted. Little if any increase in the amount of gas from 4867' could be observed. The fact that the fluid level could not be lowered below 2004', is believed to indicate that the Kayenta and Wingate sandstones are water bearing.

Potash Company of America - Wright No. 2 Testing operations

TESTS FOR OIL AND/OR GAS (Continued):

5. SWABBING AND BAILING TEST (to test gas show at 4867'):

Date: Dec. 27 - Jan. 10, inclusive, 1943-44
Depths tested: 4540' - 5012'6"
Formation tested: Paradox salt section
Nature of test:

After coring to 5012'6", 6-5/8" casing was cemented at 4540' with 120 sacks of cement by Halliburton Oil Well Cementing Co. Casing was bailed dry and found not to be leaking.

Tubing was run to about 4900' and circulated to clear hole of any obstructions. Tubing was then raised to 4851', and the fluid level lowered by swabbing to 3700' when a bridge of cement fragments was found in the tubing at 3719'. Tubing was raised to 4730', and the bridge broken by pumping a small amount of drilling fluid into the tubing. The new fluid level was found at 3300'. Swabbing was continued, and the fluid level lowered to at least 4048'. With the hole voided to this depth, the flow of gas through 2" tubing was not of sufficient volume to measure with a Pitot tube in tests made by C. A. Hauptman and others.

Tubing was extracted from the hole, and the well shut in with the master gate. After 10 hours, a casing head pressure of 21 lbs. had formed, and this was entirely dissipated in 2 or 3 minutes after the casing was opened through a 2" valve.

The fluid level was lowered by bailing to 4625', at which depth a bridge was encountered. When the bridge was broken, thick mud and cement fragments were recovered. Four trips were made with the bailer to 4875'. Then a bridge formed at 4560'. When this bridge was broken, one was found at 4600'. When this bridge was cleared, the bailer was run to 4750' without obstruction. Then a bridge formed at about 4630'.

When coming out of the hole, the bailer was pulled into the crown block and destroyed. Another bailer was run and encountered a bridge within the 6-5/8" casing about 300 or 400 feet above the shoe. Spudded on this bridge with 5" bailer. On the way out of the hole the sand line parted; bailer and about 600' of line was lost in casing. Caught a hold of line with center spear, but on the way out of the hole, the line parted, and center spear and about 4000' of line was lost in the hole.

Potash Company of America - Wright No. 2 Testing operations

On January 11, 1944, testing was temporarily discontinued when the Mack Drilling Company was ordered to shut down in order to obtain competent supervising and drilling personnel, and to have equipment adequately tolled and conditioned. On January 22, 1944, the contract with Mack Drilling Company was cancelled for failure to perform.

CASING SET:

1. 13" O.D., 50 lb., 10 thread, used surface casing set at 121' and cemented with 80 sacks of cement by Halliburton Oil Well Cementing Company.

2. 8-5/8" O.D., A.P.I., 28 lb., used, welded casing set at 2728' and cemented with 865 sacks of cement by Halliburton Oil Well Cementing Company.

3. 6-5/8" O.D., 26 lb., 10 thread, used, screw casing set at 4540' and cemented with 120 sacks of cement by Halliburton Oil Well Cementing Company.